

TOWARDS A COMPREHENSIVE GREENSPACE PLAN



**FOR THE CITY OF
BLOOMINGTON 2003**

By The City of Bloomington Environmental Commission 2003

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EXECUTIVE SUMMARY – GREENSPACE PLAN

The purpose of this report is to provide the foundation and framework for a comprehensive greenspace plan for the City of Bloomington. Here we define greenspace as land that is in its undeveloped, natural state; or that has been developed or restored only to the extent consistent with sound principles of environmental protection, restoration, enhancement, and/or education.

As development within the City of Bloomington continues, there is a widely acknowledged need for the City to address the issue of greenspace loss. In 2002, the Environmental Commission reported that since 1993, Bloomington is losing approximately 2.5 percent of its non-protected open space per year, roughly equal to a remaining 30-year life-span. Many other communities across the country are facing similar issues. For example, in November of 1998, voters across the nation faced 240 state and local ballot measures concerned with increasing land conservation, parks, and smart growth policies. More than 70% of these items passed, resulting in more than \$7.5 billion in state and local funds set aside to preserve greenspace. Recently, the City of Bloomington's Park and Recreation Department conducted a survey that clearly indicated public support for greenspace acquisition as well as a general willingness to pay through taxation.

Greenspace provides numerous ecological services including purification of water and air, preservation and generation of soils, mitigation of floods and droughts, decomposition and detoxification of wastes, maintenance of biodiversity, as well as aesthetic beauty and intellectual stimulation. There are also well-documented public benefits from the preservation of greenspace including attracting tourists, enhancing real estate values, attracting businesses, preventing youth crime and promoting healthier lifestyles.

To establish a sustainable greenspace system, it is necessary to identify a comprehensive set of goals. In order to do this, the City of Bloomington should create a task force involving all interested parties to produce an equitable decision-making body. A core group might consist of City and County departments with other groups brought in for consultation and educational purposes. The Greenspace Plan task force should identify and prioritize quality greenspace based on various factors associated with biological and conservation planning, pedestrian and recreation infrastructure, and public infrastructure and aesthetic value.

The Planning Department's City of Bloomington Environmental Resource Inventory project will collect and analyze data on Bloomington's natural and cultural environments for future consideration for management and/or preservation activities. This is the first step in a multi-staged process to identify and ultimately preserve high quality greenspace. Some other stages that must be addressed include maintenance and ownership of land, agency coordination, public outreach and choosing a suitable funding mechanism. There are a number of different funding mechanisms available for acquisition including state and federal sources, local taxes and bonds.

There have been many cities and counties throughout the United States who have successfully implemented programs to preserve and manage their greenspace such as Chapel Hill, NC; Ames, IA; Gainesville, Fla; Columbia, Mo; and Lexington-Fayette, Ky to mention a few. Some recommendations for further action include: holding a 'Greenspace Summit' sponsored by the City to raise public awareness; establishing a permanent position within the City dedicated to greenspace planning and management; implementing newly adopted GPP measures in a timely manner – most notably those in the Nurture Environmental Integrity section; and establishing a 'greenspace task force' composed of a diverse set of stakeholders to tackle the issues and coordinate efforts.

SECTION I: INTRODUCTION

While communities around the United States come to terms with the increasing loss of greenspace, more and more referendums to preserve natural areas are making their way onto ballots. For example, in November of 1998, voters across the nation faced 240 state and local ballot measures concerned with increasing land conservation, parks, and smart growth policies. An astounding 72 percent of these items passed, resulting in more than \$7.5 billion in state and local funds set aside to preserve greenspace (Lerner and Poole, 1999).

As development within the City of Bloomington expands outward towards its boundaries, there is a pressing need for the City to address the issue of greenspace loss. In an effort to develop a comprehensive Greenspace Plan to direct efforts for greenspace preservation in Bloomington, the city must address the fundamental questions that underlie its motives: What is greenspace? What purpose does it serve? Do we want to preserve greenspace? How will we identify greenspace to preserve? What mechanisms are available to help acquire greenspace? And what mechanisms are most appropriate for Bloomington?

The City must also define what its role in greenspace preservation will be. Is the City to take a proactive role in the acquisition of greenspace for preservation, serve as a coordinator of efforts, or take a passive role by simply identifying and cataloging key greenspaces as they are found and/or established?

This report is a compilation of research done by the City of Bloomington Environmental Commission (EC). It includes updated information from sources such as the 1999 Proposed City-County Greenspace Plan, the City of Bloomington Environmental Resource Inventory (COBERI), the Environmental Commission's Greenspace Trends in Bloomington, Indiana 1993-2003 report, and many peer reviewed journals, papers, reports, and bulletins.

The purpose of this report is to provide the foundation and framework from which a comprehensive greenspace plan for the City of Bloomington can evolve. This report outlines what greenspace is, its role in providing critical ecological services, and summarizes the myriad of mechanisms, sources, and models used across the country to preserve greenspace. This report is not a comprehensive greenspace plan, it does not identify the location of quality greenspaces in Bloomington, nor does it provide a comprehensive set of goals and objectives for the City's role in greenspace acquisition. However, this report does provide a series of recommendations to help direct future activities concerning the management and preservation of greenspace in Bloomington.

SECTION II: THE BASICS OF GREENSPACE

To develop a comprehensive approach for greenspace acquisition it is important to have a working definition of greenspace and an understanding of the role that greenspace plays in the life of a city.

DEFINITION OF GREENSPACE

There are a number of definitions for the term greenspace. Often, greenspace and open space are used synonymously. This first section provides definitions that have been used in previous reports, plans, and ordinances for the City of Bloomington, as well as commonly accepted definitions used by other cities across the country.

1995, City of Bloomington Zoning Code Title 20.05.09.06 Designation of Permanent Open Space

Permanent open space shall be defined as parks, playgrounds, landscaped green space, and natural areas, not including schools, community centers or other similar areas in public ownership. Where a single-family residential development incorporates individual lots, the yards of such lots may constitute open space.

Delaware Township, New Jersey

Open space - "...may include publicly or privately held undeveloped lands to be used for preservation or protection of natural resources (steep slopes, stream corridors, wetlands, etc.) or managed production of resources (agricultural or pasture lands, forests, etc.) or any compatible combination thereof. Open space also includes lands with minimal or minor improvements made for a specific purpose (active or passive recreation areas, greenways, etc.) with the improvements complementing or being compatible with surrounding land uses and having a minimal impact on the environment."

American Planners Association

Open space – "land and water areas retained for use as active or passive recreation areas or for resource protection in an essentially underdeveloped state (Davidson and Polnick, 1999).

Greenspace Trends in Bloomington, Indiana 1993-2003

In this report, the term greenspace is defined as "...land that has three characteristics. First, it must have a permeable surface... Second, greenspace areas must be greater than one contiguous acre. Third, greenspace must be greater than ten feet from any manmade development such as roads, parking lots and buildings." This excludes most lawns, roadside plantings and small tree-covered plots but includes parks, golf courses and large common open spaces. (Note that this definition of greenspace is more consistent with accepted definitions for open space and differs from the definition used in this report, which better reflects current terminology).

Georgia Community Greenspace Program

Greenspace – "permanently protected land and water, including agricultural and forestry land, whose development rights have been severed from the property; that is in its undeveloped, natural state; or that has been developed only to the extent consistent with, or is restored to be consistent with, sound principles of environmental protection, restoration, enhancement, and/or education."

Typically, open space is defined as, and provides, passive and active recreational opportunities as well as natural area preservation. The main difference between open space and greenspace is greenspace generally provides only passive recreational opportunities and is centered on preserving areas in their unaltered, natural state.

For the purposes of the report, greenspace will be defined as: land that is in its undeveloped, natural state; or that has been developed or restored only to the extent consistent with sound principles of environmental protection, restoration, enhancement, and/or education.

THE VALUE OF GREENSPACE

Greenspace provides numerous ecological services including cycling and movement of nutrients, dispersal of seeds, purification of water and air, preservation and generation of soils and renewed fertility, pollination of natural vegetation and crops, mitigation of floods and droughts, decomposition and detoxification of wastes, partial stabilization of climate, protection of coastal shores from erosion by waves, protection from the sun's harmful ultraviolet rays, control of a number of potential agricultural pests, moderation of weather extremes and their impacts, maintenance of biodiversity, and provision of aesthetic beauty and intellectual stimulation. These ecological services are essential to civilization, but the exact effect of the removal of these services on human health and the environment is unknown (The Ecological Society of America, 1997).

There are also well-documented public benefits that accrue from the preservation of greenspace. These include several economic development, social, and environmental factors. Potential economic benefits to the city are numerous, and a benefit-cost analysis of situations requiring direct investment by the city might be in order to determine the feasibility of each investment. The following is a list of benefits adopted from Learner and Poole, 1999; Duerksen et al., 1997; Florida, 2002; and Crompton, 2001:

- Attracting tourists - As an extension of Bloomington's natural beauty, preserved greenspace would add to the current inventory of parks and recreational areas, as well as to the scenic opportunities already available in the more rural parts of the city and county.
- Enhancing real estate values - By combining elements of cluster design with a network of greenspace, Bloomington will be recognized as one of these smarter communities, and residents will enjoy a higher valuation of their property.
- Attracting businesses - Increases in travelers along greenways and to greenspaces could result in higher profits for both merchants and the city. Greenspace has shown in many cases to bring added economic benefits to communities, particularly those desiring the location of business and industry.
- Preventing youth crime - There is strong evidence supporting the success of using park and recreation programs to alleviate crime when they are structured to provide educational and social opportunities.

- Promoting healthier lifestyles - By increasing recreational opportunities and establishing an extensive network of greenspaces, greenspace preservation facilitates improvements in physical health.
- Alleviating environmental stress - Parks and passive greenspaces in urban settings have been proven to have a restorative effect that relieves tension.
- Preserving the natural environment - Urban growth results in the fragmentation and loss of natural wildlife habitat, and the process of urbanization will continue to alter the biological and physical components of existing ecosystems as development reaches into more and more natural areas. Trees control erosion, help clean the air of pollutants, mitigate global warming by absorbing carbon dioxide and other greenhouse gases, and help shelter and cool our homes.
- Maintaining a creative workforce - In his book *The Rise of the Creative Class*, Richard L. Florida discussed the importance of a rising new social class - the creative class. Florida discussed people's attitudes and choices concerning society and nature, and illustrated new occurrences as well as how those incidences related to fundamental economic change.

SECTION III: ESTABLISHING GREENSPACE SYSTEMS

To establish a sustainable greenspace system it is necessary to identify a suitable set of goals to guide project direction. Charles A. Flink and Robert M. Searns (1993) suggested that a minimum of five goals be considered when examining possibilities for greenway corridors. These goals can be readily transferred to the establishment of greenspace systems:

1. Human Goals. This goal should identify who will use the greenspace system, and for what purpose. This goal must also address who will be affected by the plan, and how it should be developed to incorporate all stakeholders' needs.
2. Environmental Goals. This goal must address how the plan will protect and enhance water, vegetation, wildlife, air, and other natural resources and ecological systems.
3. Implementation Goals. This goal must indicate who will implement the plan, if implementation will require action and cooperation among multiple agencies, and if special joint powers or other agreements will be necessary. This may all depend on who owns or has jurisdiction over the land the greenspace system traverses.
4. Long-term Management Goals. This goal requires recognizing who will manage the greenspace system after it has been developed, and what level of management will be required.
5. Economic Goals. This goal outlines how much money will be needed to develop and maintain the greenspace system, what type of financial resources are likely to be available from federal, state, local, and private resources, and what economic benefits the completed greenway will bring and to whom.

RECOGNIZING LOCAL NEED

In the early 1990s, the City of Bloomington began to actively pursue a greenspace preservation policy. Under Mayor Allison, the EC headed several preliminary efforts to catalog greenspaces and gauge resident reaction. The limited materials that still exist from those studies indicate the EC took many steps outlined in this draft, but did not proceed to the implementation stage.

In 2002, the City of Bloomington's Planning Department compared the acreage of Bloomington's open space to other similar cities across the nation (see [Table 1](#)).

Table 1. Benchmarking Study of Open Space for Similar Cities Across the United States (Bloomington Planning Department, 2003)

City	Population	Open Space (OS) acres	OS/1000 pop		OS/100 acres	
			OS/1000 pop	rank	OS/100 acres	rank
Ames, IA	50,731	1,196.00	23.58	10	8.66	12
Austin, TX	656,562	33,840.00	51.54	1	20.46	3
Bloomington, IN	69,291	1,713.57	24.73	8	13.43	5
Boulder, CO	94,673	4,013.00	42.39	3	24.72	2
Champaign, IL	67,518	570.51	8.45	23	5.24	19
Chapel Hill, NC	48,715	574.01	11.78	19	4.53	21
College Station, TX	67,890	1,432.04	21.09	12	5.55	17
Columbia, MO	84,531	2,006.51	23.74	9	5.88	16
Columbus, IN	39,059	788.80	20.20	13	4.67	20
Corvallis, OR	49,322	2,453.89	49.75	2	27.84	1
East Lansing, MI	46,525	435.00	9.35	22	6.04	15
Eugene, OR	137,893	2,625.00	19.04	14	10.11	8
Evansville, IN	121,582	2,314.00	19.03	15	8.87	11
Iowa City, IA	62,220	1,418.00	22.79	11	9.07	10
Las Cruces, NM	74,267	832.59	11.21	21	2.49	22
Lawrence, KS	80,098	2,796.00	34.91	4	15.22	4
Lexington, KY	260,512	4,224.60	16.22	16	2.31	23
Lincoln, NB	225,581	6,061.86	26.87	6	12.57	6
Madison, WI	208,054	5,330.00	25.62	7	9.83	9
Provo, UT	105,166	1,467.00	13.95	18	5.49	18
Tallahassee, FL	150,624	4,173.49	27.71	5	6.64	14
Tempe, AZ	158,625	1,791.87	11.30	20	6.97	13
W Lafayette, IN	28,778	430.00	14.94	17	12.17	7
AVERAGE	125,575	3,586.42	23.05	-	9.95	-

Although the study benchmarked open space rather than greenspace, it provided useful information on overall trends in land uses. In the study, open space was defined as land within a city's corporate boundaries that was owned, leased or otherwise protected (jointly or independently), for the purposes of active or passive recreation and/or preservation, by a city's parks department. Results from the expanded study showed that of the 23 cities benchmarked, Bloomington ranked 8th highest for open space per capita, and the 5th highest for open space per total city acreage. By both measures Bloomington had approximately 50% as much open space as the leading cities (see [Figures 1 and 2](#)).

Figure 1: Openspace/1000 people

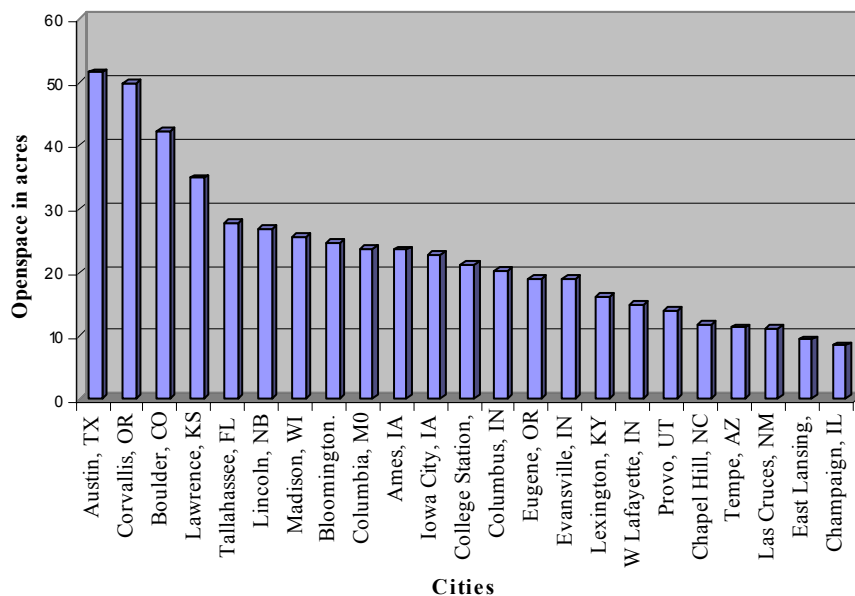
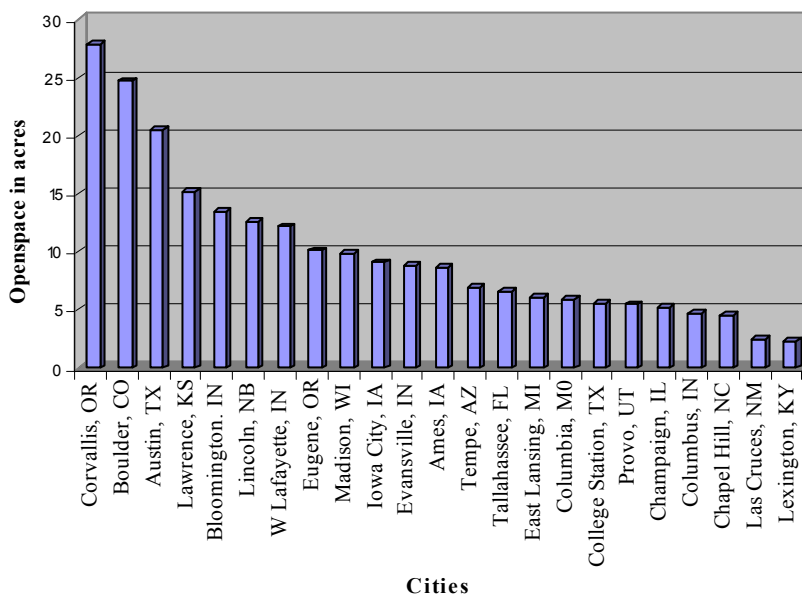


Figure 2: Openspace/100 acres



Although Bloomington ranked 8th for population and 5th for acreage ratios, it was apparent from [Table 1](#) that Bloomington has below average overall open space acreage, but provides slightly more

than average open space per capita and per total City acreage. Independent of these comparisons, the City of Bloomington and its community members would like to increase greenspace holdings.

A 2001-2002 study done by the EC revealed that in 1993, the City contained approximately 8,494 acres of open space – 52 percent of total City area. Ten years later, approximately 1380 acres of that open space has been consumed, leaving only 7115 acres of open space Citywide – 42 percent of total City area (see [Table 2](#)). That represents a loss of almost 20 percent of citywide open space since 1993 (Environmental Commission, 2002).

Table 2. Bloomington Open Space Area By Category, 1993-2003 [in acres] (Environmental Commission, 2002)

Date	Type	Area
1993	Total	8,494.65
	IU	1,283.48
	Park	1,079.30
	Non-IU/Non-Park	6,131.87
1998	Total	7,645.60
	IU	1,256.60
	Park	1,201.10
	Non-IU/Non-Park	5,187.98
2002	Total	7,373.81
	IU	1,256.52
	Park	1,296.80
	Non-IU/Non-Park	4,820.49
2003	Total	7,114.86
	IU	1,254.20
	Park	1,296.80
	Non-IU/Non-Park	4,563.86

The rate at which natural areas are being developed suggests that outside the IU campus and existing city parks, most remaining open space in Bloomington not already protected will disappear in less than 40 years. This is likely to be a conservative estimate given that another 257 acres of open space (5.3 percent of the remaining 4,820 acres) have already been approved for development and are under construction (so far in 2002), and evidence also suggests the rate of open space consumption is accelerating (Environmental Commission, 2002). Recent plans proposed for the Wapehani area, Summit Woods, the former Thompson RCA Plant grounds, and the McCammon property provide a sound basis for that assumption. In total, the EC's data indicates since 1993, Bloomington is losing approximately 2.5 percent of its non-protected open space per year, roughly equal to a remaining 30-year life-span (Environmental Commission, 2002).

RESPONDING TO CITIZEN SUPPORT

Nationwide, support for protecting greenspace is increasing. According to a survey by The Trust for Public Land (1999), two-thirds of Americans support the use of public funds to acquire greenspace. Not only are Americans supportive of using government funds to purchase and protect land, but most also say they are willing to pay more taxes so that governments can afford to make

such purchases. A majority (51 percent willing, 39 percent unwilling) are willing to pay \$18 more a year in taxes “in order to purchase and protect parks, open space, and natural lands” in their community. Willingness to pay increases as the amount of the tax hike decreases (\$12 a year: 56 percent willing, 35 percent unwilling; \$6 a year: 61 percent willing, 32 percent unwilling).

Locally, Bloomington residents maintain a strong interest in preserving greenspace. In a survey of greenspace issues conducted in 1990, citizen support was strong, with 88.7 percent agreeing that new development should take fewer existing trees. Additionally, 87 percent of respondents felt that more greenspace should be included as a part of new development. Even though people generally felt that their part of town had sufficient greenspace, 75.3 percent agreed that the city should acquire land for passive recreation use (Environmental Quality and Protection of Natural Areas, date unknown).

In a fall 1999 willingness-to-pay survey (Fischer et al. 1999), 50 percent of respondents reported that they would be willing to pay a monthly rate for greenspace in the form of an increase in property taxes. While the results of the survey were labeled economically irrational (Good, 1999), of the 50 percent of respondents willing to pay, a large grouping were willing to pay around \$1 per month, while a similarly large grouping were willing to pay around \$25 per month.

Even more recently, The City of Bloomington’s Park and Recreation Department completed their 2002 – 2006 Comprehensive Plan. The plan contained a survey, which asked Bloomington residents how they would prioritize different types of open space and recreational development, and their willingness to pay for such activities. Results of the survey not only indicated that most respondents supported acquiring property for passive recreation (55%) - followed by acquiring land to be left undeveloped for future generations (48%), but acquiring properties to develop new parks and open space ranked third highest among their priorities. Concerning willingness to pay, the survey showed the third highest ranked action respondents would be most willing to support with tax dollars was to acquire properties for new parks and open space (City of Bloomington Parks and Recreation Comprehensive Plan 2002 – 2006). The results of the study clearly indicated public support for greenspace acquisition.

GREENSPACE TASKFORCE

To accomplish the desired goals and objectives of a comprehensive greenspace plan, the City of Bloomington will need to coordinate efforts with a number of key players. To this end, a task force will need to be created, involving as many of the interested parties as feasible to produce an equitable decision-making body. Clearly the county has an equal interest in pursuing a Greenspace Plan, but beyond government involvement, a number of other stakeholders will need to be involved, including Indiana University and not-for-profits such as Sycamore Land Trust. A task force of such stakeholders should create a framework for a comprehensive greenspace plan, including acquisition mechanisms, identification, and inventorying of land to be targeted for preservation. Duerkson et al. (1997) states, “Within each community, a task force should be established to create workable systems out of the policy directives created in ordinances and intergovernmental agreements.”

TASK FORCE MEMBERSHIP

Membership in this task force will be subject to the selection of city and county officials. A core group may consist of the City and the County with the other groups brought in for consultation and educational purposes, we recommend the following constituents:

- City of Bloomington
 - Planning Department
 - Parks and Recreation
 - Common Council
 - Environmental Commission
 - Mayor's Office
 - Legal/Controller's Office
 - Monroe County Community School Corporation (MCCSC)
- Monroe County
 - Planning Department
 - County Commissioners
 - County Parks and Recreation
- Not-for-Profit Organizations
 - Sycamore Land Trust
 - The Nature Conservancy
 - Center for Sustainable Living
 - Council of Neighborhood Associations (CONA)
 - Other interested organizations
- Development Community
 - Bloomington Economic Development Corporation (BEDC)
 - Homeowner's Association
 - Chamber of Commerce
- Indiana University

SECTION IV: THE PROCESS

As the city proceeds with the formation of a Greenspace Plan task force, members will need to ask themselves a number of questions regarding the community's ability to manage growth (Arendt, 1996):

1. *The Community Resource Inventory.* Has the community adequately inventoried its resources, and does the public have a sufficient understanding and appreciation of them?
2. *The Community Audit.* Is the community monitoring and assessing its likely future under its current growth management practices, and is it taking steps to change what it does not like?
3. *Policies for Conservation and Development.* Has the community established appropriate and realistic policies for land conservation and development, and do these policies produce a clear vision of lands to be conserved?
4. *The Regulatory Framework.* Does the community's zoning and subdivision regulations reflect and encourage its policies for land conservation and development?
5. *Designing Conservation Subdivisions.* Does the community know how to work cooperatively and effectively with subdivision applicants?
6. *Working Relationships with Landowners.* Does the community have a good understanding of working relationships with its major landowners?
7. *Stewardship of Conservation Lands.* Does the community have in place the arrangements required for successfully owning, managing, and using land set aside for conservation purposes?
8. *Ongoing Education and Communications.* How are local officials and the general public maintaining their knowledge of the state-of-the-art in managing growth to conserve land?

IDENTIFICATION OF GREENSPACE

To identify quality greenspace, several factors need to be considered. First, greenspace should be categorized based on various factors associated with biological and conservation planning, pedestrian and recreation infrastructure, and public infrastructure and aesthetic value (Arendt, 1999). The Center for Greenspace Design (2003) provides a simple approach of evaluating areas based on cultural, ecological, developmental, agricultural, and recreational characteristics-CEDAR. Components of these categories can be grouped together into primary or secondary features, based on current regulations and their overall ecological value.

In general, primary features are those characteristics, which are not only environmentally sensitive, but are also mandated for protection through federal, state and/or local regulations. Secondary features are characteristics that are generally identified with greenspace and add to the usability and quality of the area. [Table 3](#) illustrates both primary and secondary features.

Table 3. Primary and Secondary Features

Primary Features	Secondary Features
Karst features (caves and sinkholes)	Sensitive soils
Wetlands	Contaminated or underutilized land
Steep slopes (> 18% grade)	Proximity to existing parks or other green infrastructure
Streams and water resources	Equitable distribution (Level of Services-LOS)
Floodplain	Culturally sensitive areas (farmsteads, cemeteries)
Conservation easements (City or other)	Other vegetation
Historic areas	
Mature native vegetation	

There are numerous standards that could be adhered to establish an acceptable level of greenspace. The National Park Service suggests a minimum of five miles of trail should be established for each 10,000 inhabitants in metropolitan areas (Arendt, 1994). Other standards range from 3 acres/1000 population in Santa Clara, California to 10.5 acres/1000 population recommended by the National Recreation and Park Association. Whatever Bloomington decides the standard should be, it should coincide with the needs and wants of the community. Not only does this provide recreational and pedestrian connectivity opportunities, but it also helps to avoid habitat fragmentation by providing corridors for wildlife. To employ this element, areas most readily integrated into the overall greenspace system that provides excellent greenway opportunities should also be identified. The following are examples of opportunities for greenways development:

- Existing bike paths
- Existing walking trails
- Scenic road corridors
- Rural/Urban road remnants
- Undeveloped rights-of-way
- Abandoned railway corridors
- Utility easements

Biological inventories should be taken of greenspace areas. Corridors help to increase the livability. As explained, wildlife connectivity is important between greenspaces. Some possible linkages include:

- Utility easements
- Open fields left for fallow
- Riparian zones
- Natural topographic features such as hillsides, valleys and natural drainages

There are two main steps required to identify and locate quality greenspace. These have already been examined in the 2002 Greenspace Report and through work of the Planning Department.

They are as follows:

1. Greenspace Inventory – a greenspace inventory is a method to collect information about the natural and built environments in an effort to map and prioritize the community's natural and cultural resources. In this step, primary, secondary and all other pertinent features are 'inventoried' and physically located on a map of the study area. Data collection methods include reviewing existing literature such as government documents, reports, and databases, as well as doing on-site reconnaissance inspections to physically locate features. This step provides the factual foundation for further analyses.
2. Greenspace Analysis – a greenspace analysis integrates the data collected in step 1 into a GIS database to create environmental overlays. These overlays are then used to perform a series of sensitivity analyses, which prioritize, and help target areas for preservation. In order to accurately prioritize and target areas for preservation, analyses using point-based ranking models are typically used. In general, these ranking procedures consider the environmental sensitivity of regions based on the number, and quality, of features in the study area, considering factors such as parcel size, land use (zoning, use intensity), proximity to public infrastructure/resources, and other growth policies plan principles as well.

PRIORITIZING GREENSPACE

The following areas need to be addressed when prioritizing greenspace:

- Presence of Primary Features – Primary features are the main concern in identifying greenspace opportunities. While some areas will likely remain in their natural state for the sole purpose of preservation, other green areas that have previously been altered (e.g., by having trees removed or sinkholes filled) may be better suited for becoming parks or recreational areas. Primary features should be given priority during site assessment and used to differentiate potential greenspace land uses as well. (Refer to Table 3 for primary features).
- Presence of Secondary Features – Secondary features will often complement the primary natural features, and typically contribute to the overall ecological value of a site. Secondary features should be taken into consideration along with primary features as a part of the overall greenspace assessment. Alone, secondary features may not indicate a prime greenspace area, but their presence improves the aesthetics or overall worth of a site. (Refer to Table 3 for secondary features).
- Likelihood of Future Development – Part of the prioritization process should involve assessing the risk of future development for each site being considered. A continuum should be established, listing all parcels up for consideration according to how soon they may be up for sale or are slated for development. Past and current development proposals, as well as questioning landowners, could help supply this information.

- **Corridor Opportunities** – The more readily a parcel can be incorporated as a part of an entire greenspace system, the more weight the property may be given as an opportune property for preservation. The city would need to consider long-term goals when evaluating corridor opportunities. Since a Greenways and Alternative Transportation Plan already exists for the City of Bloomington, this planned network could be used to help located prime preservation areas, as well as add to areas already targeted for connectivity infrastructure. The input of Bloomington or IU running and biking clubs could also be solicited to identify scenic paths not a part of any current plans.
- **Availability of Funds** – Because outright purchase of land is only one option for acquiring greenspace, the availability of funds, whether through the annual budget or obtained from financing or grant sources, should be an important consideration.
- **Applicability of Zoning Revisions** – As one opportunity to preserve greenspace, the City may initiate revision of zoning and other regulatory mechanisms. In fact, Zoning Code revisions are currently underway for the City of Bloomington and are targeted for completion within two years. If a property can be partially preserved as it is developed according to new or revised regulations, then an expenditure of funds might not be necessary to effectively preserve the greenspace features of that property. Since zoning revisions are a long-term solution, they should be taken into consideration as a part of the overall strategic plan.
- **Coordination With Other Entities** – Since land trusts have more restrictive guidelines for land that they will accept for acquisition, they should be offered an opportunity—through their involvement with this project—to review each potential greenspace site.
- **Grant Eligibility** – A number of grant opportunities apply only to farmland or require that the site be part of a measure to improve water quality in the local area. All grant opportunities should be investigated as time and resources allow, but grants should not be relied upon as the sole revenue source to fund greenspace acquisition and preservation.

Currently, the City of Bloomington’s Planning Department is undertaking a project called the City of Bloomington Environmental Resource Inventory (COBERI). The main purpose of the project is to collect and analyze data on Bloomington’s natural and cultural environments in an effort to help prioritize areas for future consideration for management and/or preservation activities. The first phase of the project prioritizes land within the City’s planning jurisdiction considering only natural features – mainly primary and select secondary features. Results initially generated by the COBERI project are only the first step in a multi-staged analysis that must also consider factors listed above before final conclusions on greenspace prioritization, and ultimately preservation, can be made.

STRATEGIC PLANNING AND TARGET SITES

To create a comprehensive greenspace system networked by corridors and greenways, the City will need to develop a strategic plan. Using the GIS overlay maps developed in the open space analysis, potential sites should be identified and ranked using the prioritizing criteria described above. Once target sites are identified, mechanisms described in Section V and educational efforts detailed in Section VIII should be combined to integrate properties into the city greenspace system.

SECTION V: MECHANISMS OF GREENSPACE PLANNING

The Olmstead Agenda, named for Frederick Law Olmsted who pursued a goal to make open space available to every American focuses on open space, park, and recreation acquisition, creation, financing, maintenance, and development throughout the nineteenth century (Garvin, 2000). In the later half of the nineteenth century a number of stakeholders, including politicians, community groups, and property owners, joined together with reformers who believed that the creation of parks and open space was the antidote to urbanization. In the twentieth century, environmentalists who saw the creation of open space and parks as a tool to protect native species and wildlife habitat joined this group.

Traditional approaches of development, such as comprehensive zoning and planning, have been the fundamental tools in growth and development management in most local communities since the early 1900s. Duerkson et al. (1997) asserts that it is time for new land management and development tools that incorporate wildlife habitat needs with the traditional approaches of development. This section discusses a number of new tools that local communities and the City of Bloomington may incorporate into their planning toolbox.

The following are brief descriptions of available mechanisms of greenspace planning (for a more detailed description see [Appendix A](#)):

LAND PURCHASE PROGRAMS

Land Purchase Programs are methods by which the City of Bloomington can actively acquire ownership or ownership interest in land through a direct expenditure of funds. Direct purchase will require funding through available sources, such as the city budget, long-term financing, or grant opportunities. [Appendix A](#) discusses 11 examples of land purchase programs including fee simple purchase and bargain sales (Duerkson et al., 1997).

PRESERVATION WITHOUT DIRECT LAND OWNERSHIP

Programs in this category are opportunities for the city to obtain control of land use without actually purchasing the land. Public outreach and careful planning will contribute to the success of these programs. [Appendix A](#) discusses 5 examples of this category including simple and option programs (Chambers and Duerkson et al., 1997).

DONATION

While greenspace preservation is less likely to occur through donations than through other means, it should not be overlooked as an option. Working with not-for-profit organizations, the city can encourage donation of land by conservation-minded landowners. Benefits available from some of these methods may be exclusive to properties donated to not-for-profits. Additionally, those organizations may have authority in situations where the city lacks it. [Appendix A](#) discusses 7 examples of donations including land trusts and conservation easements (Duerkson et al., 1997; Munich 1989; and Green Communities Association, 1997).

ZONING

Zoning refers to the regulatory means by which the city can control development and development densities on land parcels within its jurisdiction. There are a number of ways by which the city can alter or make use of existing zoning codes to encourage or mandate the establishment of greenspace.

The Planning Department will be charged with implementing policies of this nature through the appropriate channels. [Appendix A](#) discusses 17 examples of zoning including performance and restrictive zoning (Duerkson et al., 1997; Lexington-Fayette Greenspace Commission, 1994; Indiana Land Use Consortium, 1999; and Arendt, 1994).

DEVELOPMENT/DEVELOPER-FOCUSED

Methods listed below would apply during the planning phase of future developments within the city. The focus of these programs would be on appropriate density and development-to-greenspace ratios. Members of the Planning staff should become involved with these initiatives at the earliest opportunity. Plan Commission approval may be required in some instances. [Appendix A](#) discusses 20 examples of developer-focused mechanisms including mandatory dedications and building requirements (Munich, 1989; Duerkson et al., 1997; Lexington-Fayette Greenspace Commission, 1994; and Arendt, 1994 and 1996).

PASSIVE PRESERVATION PROGRAMS

Passive preservation programs do not exist to actively seek permanent greenspace preservation. Generally, they are non-binding and subject to the whim of the landowners. However, while passive programs are in place, the city can work on programs to acquire greenspace in perpetuity and on obtaining funding. Public outreach and education will contribute to successes in this area. [Appendix A](#) discusses 9 examples of these programs including recognition and notification programs (Munich, 1989; Duerkson et al., 1997; and Lexington-Fayette Greenspace Commission, 1994).

STRATEGIC PLANNING

Strategic planning programs are maintained at the local government level and require extensive thought and preparation. The city will need to work with landowners and nearby governments to establish agreeable boundaries and districts to be affected. [Appendix A](#) discusses 4 examples of strategic planning including urban growth boundaries and targeted growth strategies (Duerkson et al., 1997 and Lexington-Fayette Greenspace Commission, 1994).

SECTION VI: POTENTIAL FUNDING SOURCES

There are a number of different funding options available to communities including state and federal sources, in addition to local options such as taxes and bonds. [Table 4](#) provides some information on potential state, federal, and private sources for funding currently available. For further explanation of these funding sources and others, please see [Appendix B](#).

Table 4. Sample of Possible Funding Opportunities

Funding Opportunity	Granting Agency	Deadlines
Section 108 Loan Guarantee Program	HUD	rolling
Land and Water Conservation Fund	IDNR	pending
Conservation Reserve Program	FSA-NRCS-USDA	rolling
Wetlands Reserve Program	NRCS-USDA	rolling
Farmland Protection Program	USDA	rolling
Forest Legacy Program	IDNR	January 31
Kodak American Greenways Grants	Conservation Fund	June 1
Recreational Trails Program	IDNR	May 1
Livable Communities Initiative	FTA-DOT	rolling
Transportation Enhancement Grants	FHWA-DOT	pending
Transportation/Community System Preservation	DOT	pending
Transit Enhancements	FTA	pending
Section 319 Nonpoint Source Water Management	IDEM	October 1
205j Grants (Previously 604b Grants)	IDEM	January 31
104(b)(3) NPDES Grants	IDEM	January 31
Five-Star Restoration Challenge Grants	EPA/NFWF	March 3
Flood Mitigation Assistance Grants	FEMA	pending
Resource Conservation and Development Program	NRCS-USDA	pending
Conservation Technical Assistance	NRCS-USDA	pending
NEA New Public Works Grants	Nat. Endowment for the Arts	FY2004
Brownfields Site Assessment Grants	IN Dev. Finance Authority	August 8
Brownfields Economic Development Initiative (BEDI)	HUD	pending
Indiana Heritage Trust	IDNR	rolling

CITY/COUNTY OPERATING BUDGETS

Where money is available for existing programs, funds could be applied toward greenspace acquisition measures. Many cities include greenspace preservation as a part of their annual budgets, while others have successfully championed referenda that allow fund dedication. Other municipalities create additional funds through various taxation methods. The following is a more

detailed account of potential taxing and non-taxing funding methods:

Taxing Methods

- Property tax check-off
- Sales tax (county or city)
- Visitor tax – soda, fast-food, hotels, recreation, billboard
- Mitigation tax-garbage, landfill, stormwater, wastewater

Non-taxing Methods: Existing sources

- Greenspace Fund (\$50,000/year)
- Reallocation of funds
- Alternative Transportation and Greenways Systems Plan
- General Fund

Non-taxing Methods: New Sources

- Developer Fees
- Loss of greenspace fee
- Federal Funds
- State Funds
- Private Non-Profit Groups
- Donations
- Bonds
- Lottery Funds

SECTION VII: MAINTENANCE AND OWNERSHIP OF GREENSPACE

Once funding is secured and greenspace areas are actually acquired, maintenance of those greenspace areas will require the involvement of many actors in the comprehensive plan. Depending on the categorization of each site, various “stewards” will need to be charged with overseeing their portion of the network, with all properties coordinated by the body given responsibility for the greenspace plan. The following are categories likely to evolve through this plan:

- *Lands currently under stewardship* – Property in this category includes lands already a part of an existing network that is being maintained by the current owners or stewards. For example, the Parks and Recreation Department oversees all recreational areas within the city over which they maintain authority. Parks and Recreation would therefore remain in charge of maintaining these areas. A Parks and Recreation liaison to the greenspace plan would coordinate their departmental efforts with the overall goals and priorities of the city. In the same way, Sycamore Land Trust properties would continue to be maintained in their usual fashion, in coordination with the greenspace plan.
- *Lands acquired by greenspace not-for-profit* – In the case of property acquired by any newly formed greenspace not-for-profit organizations, a method for stewardship would have to be enacted for each individual property. In the case of land obtained and transferred to either land trust or Parks and Recreation ownership, the accepting body would be charged with maintaining the property. Lands to be held by the not-for-profit would need to rely on volunteer efforts by the organization or other contracted parties to maintain the area and ensure that it was being preserved as open space and was not being subjected to unauthorized land uses.
- *Properties acquired/ owned by city or county* – Properties held by the city or county would require oversight by the respective government body. Government maintenance personnel could be charged with the upkeep of newly acquired properties according to city/county policies regarding such issues. With greenspace as a new priority for the city, a subsection of the available labor force could be dedicated to greenspace upkeep, and city staff could be charged with overseeing each site to ensure that land was being used only in ways that had been agreed upon previously.
- *Future development “set-asides”* – Greenspaces resulting from future developments have been maintained by many different routes in the past in other areas. In many cases, homeowners associations, when they exist, take responsibility for the green areas and oversee their upkeep with annual dues. In some cases, the private developer retains oversight responsibility and usually hires professional caretakers. In fewer cases, the land (or an easement) is simply signed over to the local government and is incorporated as a part of their land responsibility. If the reserved property is ecologically eligible, a land trust has been known to accept stewardship in exchange for the easement rights.

SECTION VIII: PUBLIC OUTREACH

Public outreach can be classified in two main categories: greenspace education and land solicitation. Educational outreach should focus on showing the citizens of Bloomington that there is a real need for greenspace preservation and that a successful Greenspace Plan will bring a number of benefits to the city and to them as taxpayers and residents. Land solicitation should revolve around gaining landowners' voluntary cooperation with increasing the City and County's dedicated greenspace. Demonstration projects can be undertaken to show that not only is this Plan possible, but it is also feasible and even beneficial.

EDUCATION

As development within the City of Bloomington expands outward towards its boundaries, there is an urgent need for the City to address the issue of greenspace loss. A proactive educational effort can publicize and interpret the Greenspace Plan to the public. Successful implementation of the Plan relies upon building a strong base of public support. Greenspace preservation should be shown to be not a luxury, but rather a necessity if residents want to maintain their quality of life. We recommend the following educational initiatives: a greenspace column in the local newspaper, development and distribution of a pamphlet on greenspace and the ecosystem services it provides, development of a greenspace webpage on the EC's website, use of the Ecological Society of America's "Communicating Ecosystem Services Toolkit" in a series of public greenspace seminars, and development and distribution of a greenspace bumper sticker that features a URL for the EC greenspace webpage.

Details about the Plan need to be shared and open meetings need to be held so that citizens have access to information and staff involved with the Plan. A mini-conference could be held where speakers from communities with successful plans explain the process that they went through to reach the point where they are today. Tours could be conducted through Bloomington's current greenspace, and participants could trace out their own trail from one parcel to another, so that they could see firsthand how greenway linkage would benefit the overall system.

Education will also need to be conducted within the government itself and with organizations set to take part in the process. The goals of the Plan must be incorporated into the overriding missions of everyone involved so that there is no contradiction and so that everyone is behind the program (Lexington-Fayette Greenspace Commission, 1994).

LAND SOLICITATION

Land solicitation should begin with the education of private landowners as a target audience. Private property owners need information regarding what exactly a conservation easement is, for example, and what the advantages and disadvantages to them will be. Property owners should be informed of the financial, environmental, and quality of life aspects of greenspace preservation.

Landowners will be more comfortable working with task force staff if the education process begins with simple education about greenspace, with solicitation efforts set to follow. A letter should be drafted to all city and county property owners informing them of the benefits of preserved green space. Even the homeowner with only a small yard should be encouraged to "keep it green" in an

effort to beautify and naturalize Bloomington and Monroe County. Owners of targeted properties, however, need to be asked to maintain their lands as greenspace voluntarily, through one of the passive mechanisms discussed in Section IV.

Once greenspace awareness is sufficient, individual owners can be approached about the possibility of donating easements to benefit the Plan. Failing a donation, landowners may wish to sell their easements, in which case the City should be prepared to put each parcel into perspective, relative to the plan. Even if a property remains out of the city's hands, it should be monitored in regards to its likelihood for development and changing land uses.

SECTION IX: RECOMMENDATIONS

Throughout the United States, cities and counties have been developing programs to preserve and better manage their greenspace. [Appendix C](#) provides an outline of several successful greenspace programs across the nation which can be used to help develop a model for Bloomington to follow.

The following are a set of recommendations developed by the EC for the City of Bloomington to pursue:

1. Hold a ‘Greenspace Summit’ involving the EC, Planning Department, Parks and Recreation, and the Mayor’s Office to discuss this greenspace report in general, as well as the fundamental questions presented in the Introduction, the City’s role in greenspace preservation, and establishment of a Greenspace Taskforce.
2. The current greenspace fund was established 10 years ago and is currently \$50,000/year. This should be increased.
3. Act on the implementation measures outlined in the Growth Policies Plan (GPP) in a timely manner – most notably those in the Nurture Environmental Integrity section.
4. Increase greenspace education efforts in the community.
5. Establishment of a permanent position within the City of Bloomington dedicated to overseeing Bloomington’s greenspace program.
6. Update the greenspace inventory on an on-going basis.
7. Encourage City/County Coordination of parks/open space and greenspace planning.
8. Establish a Greenspace Taskforce involving a diverse set of stakeholders. The Greenspace Taskforce should set goals and timelines for key activities of each of the committees, and establish a mechanism for subcommittee reporting on progress. Taskforce and its subcommittees will help ensure broad based support for greenspace plan goals, and facilitate cooperation and coordination. With subcommittees delegated to key areas such as:
 - a. Development of a greenspace strategic plan (identification and prioritization)
 - b. Review of other city’s efforts
 - c. Public outreach
 - d. Greenspace acquisition (may need subcommittees delegated to various mechanisms such as zoning, developer-focused, etc.)
 - e. Funding options
 - f. Maintenance and ownership

APPENDIX A

COMPLETE DESCRIPTIONS OF SECTION V: MECHANISMS OF GREENSPACE PLANNING (adopted from Lexington-Fayette Greenspace Commission, 1994; Duerkson et al., 1997; Munich 1998; Arendt, 1996 and 1999; American Farmland Trust, 1999; Indiana Land Use Consortium, 1999; Chambers; Green Communities Association, 1997; and Crompton 2001)

LAND PURCHASE PROGRAMS

Land Purchase Programs are methods by which the City of Bloomington can actively acquire ownership or ownership interest in land through a direct expenditure of funds. Direct purchase will require funding through available sources, possibly the city budget, long-term financing, or grant opportunities.

- *Fee Simple Purchase* – Acquisition of land in fee simple gives the purchaser full title to and possession of all rights associated with the purchased property, subject only to the constraints imposed by nuisance laws and valid public regulations, including zoning and subdivision. Fee simple ownership provides the simplest and most effective means of implementing greenspace because the government owns the land and controls its development, redevelopment, preservation, and access.
- *Bargain Sale* – Acquisition of land through bargain sale can occur when a landowner offers a parcel for sale at less than fair market value to the city or other purchasing agency. Bargain sales occur less frequently than full-price sales, and would be likely only in a situation when landowners are more concerned about preserving the land in perpetuity than making a large profit from the sale.
- *Installment Purchase Agreement (IPA)* – IPAs spread out payments so that landowners receive semi-annual, tax-exempt interest over a term of years (typically 20 to 30). The principal is then due at the end of the contract term. Landowners also can sell or securitize IPA contracts at any point to realize the outstanding principal. The day before the settlement, the city would set the rate for the interest to be paid to the IPA holder.
- *Acquisition of Undivided Interest* – As an alternative to sole ownership, purchasing a percentage of ownership provides the organization with a legal interest in the management of the property.
- *Integration into Parks Purchase Program* – Working in conjunction with the City of Bloomington's Parks and Recreation Department, it may be possible to expand the current purchase program to include the acquisition of important greenspaces by amending the list of eligible types of land and criteria for the selection of habitat lands. In many cases, this expansion would be consistent with the intent of the existing program and would not require the creation and funding of an open space program specifically designed for greenspace purposes.
- *Purchase and Sellback* – Once the city owns the land, does not necessarily need to retain ownership in all aspects of the land. It can use its position as the owner of the land to facilitate the rezoning of the land or to impose negative easements, deed restrictions, or development agreement, and then resell the land to a third party.
- *Purchase and Leaseback* – Similar to a sellback, the city could purchase the property and then lease it to a third party subject to conditions and restrictions as provided in the lease.

- *Purchase “Triggers”* – The city may not need to purchase a certain property at all until an alternative use or sale of the land is contemplated. Purchase “triggers” apply the basic concept for purchase options in real estate transactions—they provide a means for potential purchaser to “tie up” a property without actually buying it. One issue with purchase triggers is cost. Governments sometimes spend large amounts of money on buying rights to purchase and then another large sum to actually purchase the land. Another drawback is time-related; delaying purchase may allow for increased development pressures, which could then drive up the market value of the land being considered.
 - *Options* – By purchasing an option on property, a potential purchase reserves the exclusive right to purchase the property within a specified time period or in the event that certain events happen.
 - *Rights of First Refusal* – Here, the city pays for a first right to purchase a property if the property is to be sold. The buyer of a right of first refusal often does not need to negotiate a price in advance but is obligated to match a bona fide offer submitted by another potential purchaser. This avoids the difficulty of valuing greenspace now but does protect the seller against having to sell at a bargain price when there is a better offer from another potential buyer. Problems may arise in this case when exact figures are needed to be able to meet budget constraints or plan for funding cycles.
 - *“Sword of Damocles” Provision* – Such a provision can be implemented under the city’s power to condemn land. If the proposed use of lands or habitat or buffer zones meets the definition of a “public purpose,” the local government has the power to purchase the land through the eminent domain process. The government also has authority to agree not to use those powers as long as certain conditions are maintained.
- *Life Estates* – The city may be able to work toward its greenspace goals through the acquisition of life estates in important lands. When landowners are unwilling to grant easements or impose deed restrictions or covenants that would bind their children’s use and disposition of the land, the city may want to purchase a life estate in the land and lease the property back to the current owner at roughly the same cost. The terms of the transaction allow the government to control the use of the land during the owner’s lifetime but terminate that control at the time of the owner’s death. Even though the land could be put to incompatible use sometime in the future, the purchase of a life estate can buy time for the city to consider follow-up steps and/or raise money for eventual purchase of the property.

PRESERVATION WITHOUT DIRECT LAND OWNERSHIP

Programs in this category are opportunities for the city to obtain control of land use without actually purchasing the land. Public outreach and careful planning will contribute to the success of these programs.

- *Conservation Buyers Program* – In this type of program, the city would get involved at the transaction level, but would not actually purchase the land themselves.
 - *Simple Program* – In a simple program, the city simply introduces conservation buyers (often land trust and conservation organization supporters) to the people who are selling land. Then the city stands back, and lets the buyers and sellers try to complete a deal. Conservation comes later, sometimes years after the sale, when the new owner donates a conservation easement. In the meantime, however, it is understood that the conservation buyer will preserve the land through compatible use.

- *Option Program* – In an option program, the city would negotiate with a seller for the option to buy, with conditions (e.g., final Board approval, clean report on Phase 1 environmental, clear title, surveying, etc.). Then, while these conditions are being addressed, the city would actively recruit a conservation buyer to purchase the land before any city money was expended toward purchase. Some sellers will resist this option technique as uncertain. The sellback program described in the previous section could then become an option.
- *Conservation Easements* – Easements can be viewed as just a few of the bundle of rights that are included in fee simple ownership. The severable nature of easements allows a landowner to convey or reserve specific rights associated with a property apart from the right to possess and use the land in general. Through a legally binding agreement, positive easements grant someone else an affirmative right to the property (e.g. right of access), whereas negative easements restrict the actions of the owner.
- *Purchase of Development Rights (PDR)* – PDRs are similar to conservation easements. Again, through a legally binding agreement, the city can control land development without buying the fee simple interest in the greenspace itself by paying landowners to forgo certain land development rights. A PDR program should be used when development pressures are not so strong as to inflate the values of development rights and when the residual values of the land remain profitable. The legality of this type of program in Indiana should be investigated further.

DONATION

While greenspace preservation is less likely to occur through donations than through other means, it should not be overlooked as an option. Working with not-for-profit organizations, the city can encourage donation of land by conservation-minded landowners. Benefits available from some of these methods may be exclusive to properties donated to not-for-profits. Additionally, those organizations may have authority in situations where the city lacks it.

- *Outright Donation* – Interested donor could be recruited from landowners known to be environmentally conscious. Inspection, maintenance, and management costs would be fully borne by the city after the time of donation.
- *Conservation Easements* – See above. A landowner, also through a legally binding agreement, may also donate easements.
- *Tax Incentives* – In conjunction with donations of land or conservation easements, tax incentives provide benefits to donors when the gift of property is made to a qualified, exempt not-for-profit organization and meets one of several tests for “conservation purposes” to be a “qualified conservation contribution.”
- *Land Trusts* – As part of the Greenspace Plan, land could be donated under the above conditions to a land trust. Currently, the Sycamore Land Trust operates in Bloomington and Monroe County. Land accepted by the land trust would need to meet their requirements in order for the organization to commit to stewardship. The city either could work to actively find Land Trust donors or could partner with the Sycamore Land Trust to coordinate greenspace preservation efforts. Additionally, the Land Trust could acquire land now for eventual purchase by the city. Land trusts can also acquire PDRs and easements and can take advantage of sellback or leaseback programs.
- *Land Banking* – where state law allows them, state or local governments may establish land banks with money derived through a real estate transfer tax. Easements or outright purchase

could then be used to purchase land to take it out of the market for future development. Bloomington had established a large land bank in the early 1990s, but was forced to discontinue the concept when legal implications arose. The legality of land banks in Indiana needs to be considered.

- *Land Trades* – The city should consider whether the most cost-effective way to acquire greenspace may be to trade other lands owned by the city and no longer needed for their original purposes. Land parcels in or near developed areas, instead of being sold on the open market, could be traded for lands further away. In cases where the current owner of greenspace is holding it for future development, a potential trade for land nearer to established infrastructure and market demand may be very attractive. This type of program could also encourage infill development, described below.
- *Adopt-A-Greenspace Program* – At the neighborhood level, homeowners associations or neighborhood groups could be used as a resource, either to purchase vacant parcels of land or to preserve through easement land that is currently owned by residents. Charged with the authority to maintain this greenspace, the neighborhood would be able to reap the benefits of its ownership directly.

ZONING

Zoning refers to the regulatory means by which the city can control development and development densities on land parcels within its jurisdiction. There are a number of ways by which the city can alter or make use of existing zoning codes to encourage or mandate the establishment of greenspace. The Planning Department will be charged with implementing policies of this nature through the appropriate channels.

Restrictive Zoning – This type of zoning would be applied to current zoning standards to provide optimal preservation of greenspace.

- *Large-lot Zoning* – Zoning ordinances that require larger than several communities have applied normal lot sizes in an effort to preserve open spaces and slow development. This type of zoning helps prevent the development of large tracts of open spaces and agricultural areas. Because the per-unit cost increases when housing in a development is spread out, the option of clustering (see below) can be used in conjunction with a density bonus, also below.
- *Use Restriction Zoning* – Use restriction control the permitted uses on greenspace lands and surrounding areas. Most often used in the protection of animal habitat, through its listing of uses by right, conditional uses, and the criteria for approval of conditional uses, a zoning ordinance can prevent traffic-intensive or people-intensive activities from occurring close to prime areas. This approach allows applicants for conditional uses to move forward with their projects if they could design the sight and manage their operation in sensitive ways. (See also Development/Developer-Focused).
- *Existing Use Zoning* – Most notable for preserving agricultural land, existing use zoning can be used by a city to control where development can happen. Using a concept similar to Urban Growth Boundaries, a city that zoned something existing use would be doing so until it decided to "unzone" it at a later time for development.
- *Density Restriction Zoning* – Minimum lot size requirements or maximum residential densities can be amended to reduce the number of people on sensitive land and the frequency of human interaction. Projects can be designed with a gradient of density away from more sensitive greenspace areas. These areas could have very low densities, and development

further back could have correspondingly higher densities. Overall density can then remain the same.

- *Performance Zoning* – As an alternative to existing zoning, performance zoning regulates development primarily by limiting development impacts rather than densities or uses. Such an ordinance may target either a single type of impact (such as development of open space) or a broad range of impacts (to go a step further and protect specific land features). Developments that meet the set standards would be allowed regardless of whether they are residential, commercial, or industrial, but even low-density developments that fail to meet the standards would be prohibited. Sophisticated performance zoning ordinances may incorporate point systems whereby proposals are assigned point values for their ability to minimize a variety of impacts, and all proposals must achieve specified minimum scores.
- *Area Based Allocation Zoning (ABAZ)* – An approach generally used for agricultural land, ABAZ requires that homes be located on much smaller lots to avoid fragmentation of the resource base into “farmettes” of 5 to 40 acres. Under ABAZ, the number of house lots allowed would be directly proportional to the development’s total acreage (e.g., one lot for every 20 acres), but these lots would be subject to maximum size restrictions (often one acre), and may further be required to be located on the parts of the property that are least appropriate for greenspace. Current PRO standards apply this type of allocation.
- *Sliding-Scale Zoning* – In this variation of ABAZ, a “sliding scale” is used wherein the number of potential dwellings increases at a slower rate as the farm tract increases in acreage. The rationale behind sliding-scale zoning is that smaller parcels are often less suited for long-term use outside of development. Current PRO standards apply this type of allocation. The following table illustrates an example sliding scale:

Table A1: Dwelling Yield and Acreage Protected Under Sliding-Scale Zoning (Arendt, 1994)

Size of Tract (acres)	# of Dwellings	Resulting Acres/Dwelling Unit
1 but less than 5	1	1.0 - 5.0
5 but less than 15	2	2.5 - 7.5
15 but less than 35	3	3.0 - 10.1
35 but less than 65	4	3.9 - 16.1
65 but less than 105	5	12.5 - 21.0
105 but less than 145	6	17.5 - 22.2
145 but less than 185	7	20.7 - 26.5
185 but less than 225	8	23.2 - 28.1

Rezoning/New Zoning Classifications – New zoning classifications could be adopted to preserve greenspace and open spaces as well as their characteristic features.

- *Greenspace Ordinance* – The city could enact a new subsection of text to existing zoning code addressing greenspace preservation and make new requirements applicable to all existing zone districts. A second option would be to draft similar protection language but to add the new requirements to only specific zone districts through amendments to those chapters of the code.
- *Low-Density Agricultural Zoning* – This method has proven effective at preserving farmland, but could be transferred in principle to other areas. Such zoning would include a large minimum parcel size (often 160 acres or greater), the exclusion of all nonfarm land uses, and

other restrictions such as limits on the number of building permits in the zone. With this large-lot zoning, once the allowable number of lots has been developed anywhere on the property, no more construction is allowed.

- *Greenspace Zoning* – An entirely new zoning category could be created to designate land for greenspace uses. Rural scenic corridors and floodplain areas, for example, could be labeled with this designation. The question of the legality of this method in Bloomington requires further investigation.
- *Overlay Zoning* – Overlay zones are special zone districts that supplement, but do not replace, the basic zoning regulations applicable to a property. An overlay zone effectively eliminates the need to revise the regulations for each zoning district. Instead, it superimposes additional regulations specifically targeted to protect important physical characteristics of the land. A floodplain overlay zone, for example, would identify floodplain areas within a development, and additional requirements would be put in place for building on the overlay area.

Other Zoning-Related – While not directly zoning, these items address areas where development could potentially be limited due to special designations.

- *Adequate Public Facilities Ordinance (APFO)* – Implementation of an ordinance of this type would tie together the location and timing of development based on the availability of municipal services. New developments would only be approved where the infrastructure is capable of properly serving the proposed development. Infrastructure therefore leads development, rather than development leading infrastructure. The city has an APFO in place to direct higher intensity uses around the city's edge. Similarly, the city of Lexington, Kentucky, has an "urban services boundary" that prescribes the extent to which the city will expand urban infrastructure.
- *Historic Districts* – Regulatory means could be put in place whereby any development in or near local, state, or national historic areas or structures would have to meet specific requirements. In rural portions of the city and county, these restrictions may have the added impact of preserving greenspace.
- *Nature Preserves Designation* – Land classified as nature preserves would be required to be held as greenspace until approved for other uses. This method may not be applicable to areas within Bloomington.

DEVELOPMENT/DEVELOPER-FOCUSED

Methods listed below would apply during the planning phase of future developments within the city. The focus of these programs would be on appropriate density and development-to-greenspace ratios. Members of the Planning staff will become involved with this initiatives at the earliest opportunity. Plan Commission approval may be required in some instances.

Application/Screening Phase – During review of proposals, specific criteria could be applied to address potential impacts of development on the city’s greenspaces.

- *Performance Systems* – Potentially a part of performance zoning (see above), performance systems use a point system to evaluate the actual effect of each development. Points are awarded for preservation of various greenspace criteria according to a standardized methodology. This review allows the developer a chance to mitigate any adverse effects and provides a more flexible range of acceptable developments than allowed under more restrictive zoning policies.
- *Environmental Review* – The city could establish an ordinance requiring an environmental review before certain types of development can be undertaken. Less structured than a performance system, this review would require the developer to meet with city officials to discuss the possible adverse effects of the development plan as well as reasonable alternative.
- *Application Requirements* – Similar to the review procedures immediately above, application requirements will make clear to the developer whether developments can be denied if, after the application is reviewed, it is determined that the impact on greenspace is unacceptable. Applicants would be provided with greenspace information and maps of the property along with a checklist of the standards used to review applications. The applicant would then have to submit an analysis of the impacts of the development on greenspaces.
- *Subdivision Review Standards* – In contrast to zoning regulations, subdivision approval standards address primarily the size and shape of lots that can be made available for development and the amount of infrastructure that must be installed before development can proceed. Although originally designed to protect consumers from the sale of substandard or undevelopable lots and to protect the public from low-quality development, subdivision standards have expanded to include many restrictions aimed at controlling the impacts of development. Many controls that could be included in zoning regulations can also be addressed in subdivision controls and vice versa.
- *Development Agreements* – With development agreements, the city can use opportunities to protect quality greenspace through negotiations with individual landowners at the time when specific development proposals are brought forward. The city would enter into an agreement obligating both the city and the landowner to carry out certain actions in order to “vest” a preferred development plan for a period of time. Development agreements can give the landowner more certainty that the city will not act to delay or deny the development activity for a period longer than is defined in the statute. In return, the city can ask the landowner to design and operate the proposed development in ways that will protect or even enhance the existing greenspace on the property. Development agreements are negotiated on a project-by-project basis.

Building Requirements – Developers could also be held to certain requirements that would actively preserve important greenspaces on the property.

- *Mandatory Dedication* – Land dedications are conveyances of land from a private landowner to the local government, either voluntarily or to offset the anticipated impacts of a proposed development. Where new development creates a need for increased public services and infrastructure, this practice is intended to ensure that new development “pays its own way” by assuming these costs. The city could also accept fees in lieu of dedication to be committed toward preserving greenspace elsewhere. Legal precedents indicate that the city

would need to establish a firm legal reasoning behind having either aspect of such program in place.

- *Mandatory Open Space* – Subdivision ordinances and other development ordinances may require the mandatory reservation of a certain percentage of the development as greenspace. This mechanism can be used to ensure that an adequate amount of greenspace is available at the time of development. Current PUD regulations require reservation of open space, but requirements could be made more stringent.
- *Cluster Development* – Clustering provides flexibility for developers to construct buildings in clusters while remaining within the constraints of overall average density restrictions. Under cluster development, maximum densities are calculated not for individual lots, but for overall development areas. Rather than requiring uniform intervals between building sites, such ordinances often waive minimum lot size and dimension requirements to allow tight clusters of buildings in some areas, with other portions of the parcel set aside for open space or habitat use.
- *Conservation Design for Subdivisions* – Under conservation design principles, which differs from traditional cluster development, full density is achievable only when at least 50 percent of potentially buildable land is set aside. Cluster provisions frequently require that only 25 to 30 percent of gross land be conserved, and often this land is comprised of leftover, undesirable areas. Conservation design can go so far as to protect blocks and corridors of permanent open space. Target areas for future development should be pre-identified so that each new development will add to—rather than subtract from—the city’s open space acreage. Conservation-designed subdivisions would also make it easier for the city to implement a community-wide greenway plan by allowing critical linkages along streams and ridges. Additionally, conservation design is “tax-neutral” because it changes neither the number of houses nor the total acreage assessed.
- *Limited Development* – Limited development involves dividing the land into a smaller number of higher-priced lots (10 to 30 acres), with permanent conservation restrictions in areas outside of designated “building envelopes” on each lot. A smaller percentage of the overall development would be required to be set aside, with additional greenspace coming from individual lots.

Development Bonus – Bonuses would be incentives that directly or indirectly affect the developer when a higher density is used throughout a development.

- *Transfer of Development Rights (TDR)* – Through a TDR, density transfers serve as an incentive to developers. They involve the shifting of permissible development densities from unsuitable development areas to more appropriate sites—in this case from important greenspace areas to less important areas. Under this concept, the city studies and designates appropriate “sending” and “receiving” areas on a map. A participating landowner in a sending area then transfers development rights to another landowner in a receiving area, who increases his or her development rights in that area beyond what would otherwise be possible. TDR systems help alleviate pressures and incentives to subdivide or develop land by offering some means for landowners to recoup property values while maintaining low-density land uses.
- *Density Exchange Option (DEO)* – A variation of TDR, this option would reward cooperation resulting in the relocation of potential subdivisions away from areas where they would otherwise interrupt or separate adjoining farm parcels. The incentive for the landowner is that he or she is entitled to receive value based on a density upgrade (e.g., one dwelling per

three acres, rather than one dwelling per five acres). Allowing him or her to develop at a higher density provides the incentive for the owner of the “receiving” parcel.

- *Density Bonuses* – In this very common program, the city would offer landowners a chance to construct more residential or commercial development on their land if they will take certain actions to promote greenspace. The amount of additional development density allowed could vary depending on the importance and difficulty of the landowner’s actions to promote greenspace, but bonuses are commonly in the range of 25 to 50 percent.

Development Penalty – Penalties can be issued when the development will adversely affect greenspace on the parcel in an effort to encourage the developer to alter plans.

- *Density Penalties* – Density penalties can be employed when developers squander land in large-lot plats. When standard large-lot zoning will result in the fragmentation of greenspace resources, lower densities are allowed to keep fragmentation a minimum. In this way, the city would be encouraging higher-density cluster development.
- *Impact Fees* – When the authority to collect impact fees is present, such programs collect pro rata fees from different landowners, pool them, and then use them to purchase greenspace. Since impact fees reduce the required tax burden, they can be popular with taxpayers. Funds must be spent in a timely and appropriate manner to remain within the confines of the law.

Other

- *Landowner Compacts* – This approach enables owners of adjoining properties to plan their separate landholdings as a single entity in order to achieve broader conservation objectives, while also designing the total potential development in a more logical and intelligent manner than could be achieved on a parcel-by-parcel basis. Used with cluster or open space design principles, landowners enjoy a percentage of proceeds equal to the level of permitted development on their land before the compact is formed.
- *Brownfield/ Infill Development Program* – A program designed to encourage development on vacant properties within the city is also a form of greenspace preservation. When developers can be convinced that properties with existing infrastructure will meet their needs, their intrusion into greenspace becomes unnecessary.

PASSIVE PRESERVATION PROGRAMS

Passive preservation programs are programs that do not exist to actively seek permanent greenspace preservation. Generally, they are non-binding and subject to the whim of the landowners.

However, while passive programs are in place, the city can work on programs to acquire greenspace in perpetuity and on obtaining funding. Public outreach and education will contribute to successes in this area.

- *Notification Program* – A notification program involves the notification of landowners, by letter or personal contact, of the significant natural resources (wetlands, karst features, etc.) present on their property in hopes that they will voluntarily maintain this greenspace. The program may also include counseling on the importance of the area and proper management techniques.
- *Recognition Program* – Going one step further than a notification program, recognition programs offer public acknowledgement of landowners for working to maintain their greenspace. Such public recognition may deter the landowner from undertaking

development of the property. By initiating such a relationship with the landowner, the city may be able to persuade them in the future to donate easements.

- *Non-Binding Agreement Program* – This voluntary program provides a written agreement between the landowner and the city. The landowner agrees not to disturb the significant features of the property but is under no obligation and may withdraw from the agreement at any time he or she wishes to sell or develop the land.
- *Temporary Binding Agreements* – These programs go beyond the voluntary agreement to provide greenspace protection for a limited time. The city can then seek out other means of acquiring the land in perpetuity.
- *Management Agreement* – The owner enters into a binding agreement to care for the land in a certain manner for a specified period of time. This agreement may or may not include compensation.
- *Management Lease* – Under a lease program, the city leases the land (or even just the development rights) so that it can control specified management practices for a specified period of time. A management lease has the benefit of providing complete control, but it also results in a cost to the organization.
- *Loans and Grants* – The city provides a grant or loan to be applied toward the proper management of the property. Terms of eligibility for city funding would include preservation of greenspace areas on the parcel(s).
- *Right-to-Farm Laws* – This type of legislation, were it enacted in Indiana, seeks to protect the operation of a farm from nuisance claims generated by the proximity of urban development and restricts local governments from enacting any ordinances declaring a farming operation to be a nuisance. In areas where development encroaches on traditionally farmed areas, a local version of this legislation could encourage farmers to continue current uses of their land rather than sell out to developers for fear of being sued later.
- *Differential Taxation/Use Assessments* – Where potential profits may motivate landowners to convert low-density land uses to higher intensities or to convert important greenspace into intensive development areas, preferential tax programs can counter these motives by providing incentives to maintain existing low-intensity uses. Current use assessments alter assessment practices by requiring assessments to reflect actual current uses rather than prospective potential uses, thereby providing tax relief to landowners who choose to continue agricultural or other low-density uses that are consistent with the city's greenspace goals. Another application of current use assessments would allow landowners to contract with the city to restrict the use of their property through easement or deed restriction in return for a decreased assessed value on the property. Terms of each agreement may vary, and there is a chance none will be established in perpetuity.

STRATEGIC PLANNING

Strategic planning programs are maintained at the local government level and require extensive thought and preparation. The city will need to work with landowners and nearby governments to establish agreeable boundaries and districts to be affected.

- *Urban Growth Boundaries* – The use of growth boundaries allows cities to guide new development patterns by directing urban services to some areas and withholding them from others. In particular, the city could ensure that those boundaries do not include sensitive greenspace areas. If they do, the city may want to rethink where it wants to install

infrastructure so as to avoid greenspace areas it wants to protect.

- *Targeted Growth Strategies* – Similar to growth boundaries, targeted growth designates development areas to which new growth is targeted within a region to reduce development in large areas of a county or region where greenspace areas exist. In general, targeted growth arrangements cannot be effective as greenspace preservation tools unless they involve the cooperation of the county government or regional planning area.
- *Capital Improvements Planning* – The city can also incorporate greenspace preservation goals into its capital improvements programs and budgets. Because a strong relationship exists between the presence of infrastructure and development of land, local governments can effectively discourage the development of greenspace areas by not planning for or budgeting for water, sewer lines, or roads in the area, and by discouraging the creation of special districts to finance those elements of infrastructure.
- *Growth Management Planning* – A more generalized form of the above planning strategies, growth management planning seeks to encourage the containment of population growth within the urban service area, thereby relieving development pressure on the rural service area. Incentives and coordination with principles established in the GPP could be combined to create such a plan.

APPENDIX B

COMPLETE DESCRIPTIONS OF SECTION VI: POTENTIAL FUNDING SOURCES

- *Dedicated local sales tax* – Has been successful in Boulder, CO, and Crested Butte, MT. Larimer County, CO, recently adopted by referendum an 8-year, one-quarter percent local sales tax.
- *Property tax increase* – Local jurisdictions have successfully raised local property taxes, from which additional revenues were dedicated to preserving and maintaining greenspace.
- *Real estate transfer tax* – Crested Butte, MT, and the State of Maryland have each initiated a real estate transfer tax, the proceeds from which go toward funding the preservation of open space.
- *Tourism tax* – A “tourism tax” has been implemented in many towns with a high rate of tourism to capture extra income from visitors.
- *Bed, Board, and Booze (BBB) tax* – Flagstaff, AZ, adopted their BBB tax to capture income from their visitors.
- *Cigarette tax* – The State of Pennsylvania enacted a cigarette tax to guarantee a source of funding for open space acquisition.
- *Customer donation program* – citizens groups in Montana with an interest in preserving open space began this voluntary type of program.
- *AgTIFs* – Marginal revenue generated from increasing property values after designating farmland as TIF (Tax-Increment Financing) districts has been used in Elkhart County, IN, to purchase easements on the same parcels of land (Indiana Land Use Consortium, 1999).
- *State lottery proceeds* – At the state level, both Colorado and Minnesota distribute funds to local governments for purpose of greenspace acquisition and preservation.
- *Private Non-Profits* - The Trust for Public Land maintains its Conservation Finance Program to work with citizens groups, elected officials, and public agencies to craft, pass, and implement public finance measures for conservation. Services are offered in the areas of Services, Conservation Finance Strategies, Local Case Studies, State Funding Profiles (Indiana is not included), and LandVote 2002. The website address for the Trust for Public Land can be found at <http://www.tpl.org> (last accessed on March 14, 2003).

FUNDING SOURCE EXAMPLES

1. Section 108 Loan Guarantee Program
2. Land and Water Conservation Fund
3. Conservation Reserve Program
4. Wetlands Reserve Program
5. Farmland Protection Program
6. Forest Legacy Program
7. Kodak American Greenways Grants
8. Recreational Trails Program
9. Livable Communities Initiative
10. Transportation Enhancement Reimbursement
11. Transportation and Community System Preservation Program
12. Transit Enhancements
13. Section 319 Nonpoint Source Water Management Grant
14. 205j Grants (Previously 604b Grants)
15. 104(b)(3) Grants
16. Five-Star Restoration Challenge Grants
17. Flood Mitigation Assistance Grants
18. Resource Conservation and Development Program
19. Conservation Technical Assistance
20. NEA New Public Works Grants
21. Brownfields Site Assessment Grants
22. Brownfields Economic Development Initiative (BEDI)
23. Indiana Heritage Trust

DEBT FINANCING

Where the city is willing to increase its bond debt in order to begin a serious greenspace acquisition effort, the following sources are among options available. The implications of taking on more debt, however, often include additional taxation and should be weighed against direct taxation methods as described above.

Section 108 Loan Guarantee Program

U.S. Department of Housing and Urban Development (HUD)

<http://www.hud.gov>

Contact: Eleanor Granger-White, HUD, and (317) 226-5293 extension #5293,

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/108/index.cfm>

Description: Section 108 enables Community Development Block Grant grantees to obtain federally guaranteed loans to enhance feasibility of large economic development projects.

Projects must meet CDBG requirements and can include property acquisition, reconstruction/rehabilitation of housing and other property, construction of public facilities and other improvements, assistance to for-profit businesses for special economic development activities, site preparation/environmental site assessment and remediation, demolition and clearance of property, and rehabilitation of public real property.

AVAILABLE GRANT FUNDING

Ideally, the city will be able to work with not-for-profits and public agencies to target available applicable grant opportunities. Grants would prove to be an ideal source of funding, above raising taxes and taking on long-term debt, but competition is high for many grants aimed at preserving greenspace and other conservation efforts. The following list, while not exhaustive, includes a number of opportunities that could fund direct land acquisition, establishment of a greenway system, and support programs to accompany the city's greenspace program.

LAND ACQUISITION

Land And Water Conservation Fund

Indiana Department of Natural Resources

<http://www.in.gov/dnr/>

Contact: Bob Bronson, State and Community Outdoor Recreation Planning Section, (317) 232-4070, <http://www.in.gov/dnr/outdoor/grants/lwcf.html>

Award Cycle: Pending, but if funding June 1, 2003. Federal appropriation undetermined, estimated at \$1.4 million

Eligible Projects: Land acquisition and/or facility construction or renovation for outdoor recreation; for any new or renovated park and/or outdoor recreational area such as the development of lakes, trails, and interpretive facilities. Park Board and 5-year park and recreation master plan

Funding: \$10,000 - \$200,000, 50% non-federal match required

Applicability: If funding is available in the future, the city could acquire land to improve the existing parks system or expand it into new areas.

Conservation Reserve Program

Farm Services Agency, Natural Resources Conservation Service, US Department of Agriculture

<http://www.fsa.usda.gov>

Contact: Farm Service Agency www.fsa.usda.gov/dafp/cepd/crp.htm

Award Cycle: Rolling deadline

Eligible Applicants: Individual farmers

Eligible Projects: Cropland that is planted or considered planted to an agricultural commodity during two of the five most recent crop years or certain marginal pastureland enrolled in the Water Bank Program. Other requirements apply.

Funding: Rental rates vary by property.

Applicability: The city could act to identify any applicable lands

Wetlands Reserve Program

Natural Resources Conservation Service, US Department of Agriculture

<http://www.nrcs.usda.gov>

Contact: Leslie Deavers, Natural Resources Conservation Service, (202)720-1067

www.nrcs.usda.gov/programs/wrp/

Award Cycle: Rolling deadline

Eligible Applicants: Individual landowners that have owned land at least 12 months
Eligible Projects: Permanent easements, 30-year easements, and restoration cost-share agreements (minimum 10-year duration) will be funded by USDA on approved lands.
Funding: Full cost for permanent easements, 75% of costs for 30-year easements, and 75% of restoration costs in a restoration cost-share agreement.
Applicability: The city could work to identify and assist eligible landowners.

Farmland Protection Program

US Department of Agriculture

<http://www.usda.gov>

Contact: Robert L. Eddleman, Indiana NRSC Office, (317) 290-3200 extension #5286
Award Cycle: Rolling deadline-listed in the Federal Register.
Eligible Applicants: Any local or state agency, county or groups of counties, municipality, town or township, soil and water conservation district, or Native American tribe or tribal organization. Must have a farmland protection program in place to purchase conservation easements for the purpose of protecting topsoil by limiting conversion to non-agricultural use, and must have pending offers.
Eligible Projects: Purchase of conservation easements on farmland.
Funding: \$100,000 to \$1,900,000 per cooperating entity, average of \$387,162.
Applicability: If farmland is identified, this program could be an excellent opportunity for the city to obtain funding.

Forest Legacy Program

Indiana Department of Natural Resources

<http://www.in.gov/dnr/>

Contact: Dan Ernst, Forest Legacy Coordinator, Division of Forestry, (317) 232-4101, dernst@dnr.state.in.us
<http://www.state.in.gov/dnr/forestry/legacy/>
Award Cycle: January 31 every year
Eligible Applicants: Individual landowners
Eligible Projects: Purchase of development rights for environmentally important forests.
Funding: Up to 75% of purchase price
Applicability: If eligible owners were identified, the city could expand its greenspace network.

GREENWAYS GRANTS

Kodak American Greenways Grants

Eastman Kodak, with The Conservation Fund and the National Geographic Society

<Http://www.conservationfund.org>

Contact: American Greenways Coordinator, The Conservation Fund, and (703) 525-6300
www.conservationfund.org/?article=2106
Award Cycle: June 1 every year
Eligible Applicants: Public agencies may apply, but community organizations (local, regional, or state nonprofits) receive preference.

Eligible Projects: Grants can be used for all appropriate expenses needed to complete a greenway project including planning, technical assistance, legal, and other costs. Grants may not be used for academic research, general institutional support, lobbying, or political activities.
Funding: Generally \$500-\$1000, but maximum is \$2500, no matching requirement
Applicability: Grant is small, but does not require any matching funds. If a greenway linkage program is initiated, then this would be a good, albeit small, opportunity. Thirty-five were awarded in 1998.

Recreational Trails Program

Indiana Department of Natural Resources (IDNR)

<http://www.in.gov/dnr>

Contact: Bob Bronson, Indiana Division of Outdoor Recreation, (317) 232-4070

<http://www.in.gov/dnr/outdoor/grants/rtp.html>

Award Cycle: May 1 every year

Eligible Projects: Development of multi-use trails, both motorized and non-motorized, including the acquisition of easements or property for trails. Provides for land acquisition and/or development of multi-purpose trails.

Funding: \$10,000 - \$100,000, requires a 25% local match.

Applicability: Could contribute to the development of a comprehensive trails system for the city since it provides for land acquisition.

TRANSPORTATION GRANTS

Livable Communities Initiative

Federal Transit Administration, US Department of Transportation

<http://www.fta.dot.gov>

Contact: FTA Region V (312) 353-2789, <http://www.fta.dot.gov/library/planning/livbro.html>

Award Cycle: rolling deadline

Eligible Applicants: Transit operators, metropolitan planning organizations, city and county governments, states, planning agencies, and public bodies with authority to plan or construct transit projects.

Eligible Projects: Preparation of implementation designs incorporating Livable Communities elements; the assessment of environmental, social, economic, land use, and urban design impacts of projects; feasibility studies; technical assistance; participation by community organizations and the business community, including small and minority-owned businesses, and persons with disabilities; evaluation of best practices; and the development of innovative urban design, land use, and zoning practices.

Funding: Funded through TEA-21

Applicability: Funds programs that link residents more directly to available public transit. Could be used toward a greenway/trails system designed to link pedestrians to public transit. Guidelines are stringent.

Transportation Enhancement Reimbursement

Federal Highway Administration (FHWA), Department of Transportation and Indiana Department of Transportation

<http://www.fhwa.dot.gov/environment/tea2.htm>

Contact: Gerald Nieman, INDOT (317) 232-5224, gnieman@indot.state.in.us, Frank Nierzwicki, Metropolitan Planning Organization (MPO), (812)349-3423

Award Cycle: August, 2003

Eligible Projects: Transportation enhancements are transportation-related activities designed to strengthen the cultural, aesthetic, and environmental aspects of an intermodal transportation system. To be considered projects must include one or more of the following characteristics: provision of facilities for bicyclists and pedestrians; acquisition of scenic easements and scenic or historic sites; scenic or historic highway programs; landscaping and other scenic beautification; historic preservation; rehabilitation and operation of historic transportation buildings, structures, or facilities; preservation of abandoned railway corridors; control and removal of outdoor advertising; archaeological planning and research; environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity; provision of safety and educational activities for bicyclists and pedestrians; and establishment of transportation museums.

Funding: Through TEA-21 requires a 20% match.

Applicability: Would align easily with the city's goals in linking greenspace network through greenways.

Transportation and Community System Preservation Program

Department of Transportation

<http://www.dot.gov>

Award Cycle: pending

Eligible Activities: Planning of implementation of programs designed to improve the efficiency of the transportation system; reduce impacts of transportation on the environment; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine and encourage private sector development patterns that meet these purposes.

Applicability: If a proposed greenway system actively improves pedestrian access, then this grant may be a long shot.

Transit Enhancements

Federal Transit Authority (FTA), Department of Transportation

<http://www.dot.gov>

Contact: FTA Region V, (312) 353-2789

Award Cycle: pending

Eligible Projects: Historic preservation, rehabilitation, and operation of historic mass transportation buildings, structures, and facilities; bus shelters; landscaping and other scenic beautification, including tables, benches, trash receptacles, and street lights; public art; pedestrian access and walkways; bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles; transit connections to parks with the recipient's transit services area; signage; and enhanced access for persons with disabilities to mass transportation.

Funding: Requires 50% local match.

Applicability: Both pedestrian walkways and connectivity of park system to transit sites are potential uses.

SUPPORTIVE PROGRAMS

Section 319 Nonpoint Source Water Management Grant

Indiana Department of Environmental Management (IDEM)

<http://www.in.gov/idem>

Contact: Bonny Elfritz, Office of Water Management, (317) 234-0922, belifrit@dem.state.in.us,
<http://www.in.gov/idem/water/planbr/wsm/319main.html>

Award Cycle: October 1 every year

Description: Grant used to implement projects or programs that will help reduce non-point sources of water pollution within priority watersheds, such as implementation of non-point source best management practices, stream bank repair, wetlands restoration, and implementation of polluted runoff management projects.

205j Grants (Previously 604b Grants)

Indiana Department of Environmental Management (IDEM)

<http://www.in.gov/idem>

Contact: Bonny Elfritz, Office of Water Management, (317) 234-0922, belifrit@dem.state.in.us

Award Cycle: January 31 every year

Description: Projects must address water quality issues and focus on planning, GIS, etc. No construction activities are funded. The Griffy Grant secured by the city is a 205j Grant

104(b)(3) Grants

Indiana Department of Environmental Management (IDEM)

<http://www.in.gov/idem>

Contact: Bonny Elfritz, Office of Water Management, (317) 234-0922, belifrit@dem.state.in.us

Award Cycle: January 31 every year

Description: Similar to 205j Grants, but less restrictive in that they allow construction projects and design of construction projects.

Five-Star Restoration Challenge Grants

Environmental Protection Agency, National Fish & Wildlife Foundation, National Association of Counties, and Wildlife Habitat Council

<http://www.epa.gov>, <http://www.nfwf.org>

Contact: Abigail Friedman, National Association of Counties, (202)393-6226,
afriedma@naco.org

Tom Kelsch, National Fish & Wildlife Foundation, (202)857-0166, kelsch@nfwf.org

Andrew Moore, National Assoc. of Service & Conservation Corps, (202)737-6272,
amoore@nascc.org, <http://www.nfwf.org/programs/5star-rfp.htm>

Jeff Brinck, Wildlife Habitat Council, (301)588-8994, jbrinck@wildlifehc.org

Award Cycle: March 3 every year

Description: For restoration projects that involve contributions from multiple and diverse partners. Projects must have strong habitat restoration component that provides long-term

ecological, educational, and/or socio-economic benefits to the people and their community.
Grant is very modest amount.

Flood Mitigation Assistance Grants

Federal Emergency Management Office (FEMA)

<http://www.fema.gov>

Contact: FEMA Chicago Regional Office or FEMA Mitigation Directorate (202) 646-4621

Award Cycle: pending

Description: Provides planning grants to assist communities with development of flood mitigation plans and project grants for implementation of planned measures to reduce flood losses. Communities must have Flood Mitigation Plans to be eligible for project grants, which support dry flood proofing; elevation, relocation, acquisition, or demolition of insured structures; erosion control; and drainage improvements.

USDA Resource Conservation and Development

Natural Resources Conservation Service, US Department of Agriculture

<http://www.in.nrcs.usda.gov>

Contact: Robert L. Eddleman, Indiana NRSC Office, (317) 290-3200 extension #5286,

<http://www.in.nrcs.usda.gov/programs/rcd/>

Award Cycle: pending

Description: Focuses on improvement of quality of life through natural resource conservation and community development; prudent use (development), management, and conservation of natural resources; social, economic, and environmental improvement; local leadership providing program decision making; and strengthening of citizens' abilities to utilize available sources of assistance through USDA agency partnerships.

Conservation Technical Assistance

Natural Resources Conservation Service, US Department of Agriculture

<http://www.in.nrcs.usda.gov>

Contact: Robert L. Eddleman, Indiana NRSC Office, (317) 290-3200 extension #5286, Walley

Turner, National Program Manager, (202)720-1875,

<http://www.in.nrcs.usda.gov/programs/cta/>

Award Cycle: pending

Description: To assist land-users, communities, units of state and local government, and other federal agencies in planning and implementing conservation systems to reduce erosion, improve soil and water quality, improve and conserve wetlands, enhance fish and wildlife habitat, improve air quality, improve pasture and range condition, reduce upstream flooding, and improve wetlands.

NEA New Public Works Grants

National Endowment for the Arts

Contact: Susan Begley, Information Management Division (202) 682-5452,

<http://www.epa.gov/brownfields/html-doc/nea80801.doc>

Award Cycle: funds will be available for FY 2004

Description: Design competition meant to make communities more livable. Promotes excellence in design in the public realm in areas including planning, architecture and interior design, landscape architecture, industrial design, and graphic design. Projects may include competitions for master plans; public building design; or landscape design, reclamation, or restoration. Only not-for-profit, tax-exempt organizations may apply.

BROWNFIELDS GRANTS

Brownfields Site Assessment Grants

Indiana Development Finance Authority

<http://www.in.gov.idfa>

Contact: Greta Hawvermale, Brownfields Program Manager, IDFA, and (317) 233-9799,

<http://www.in.gov.idfa/programs/brownfields.html>

Award Cycle: August 8, 2003

Description: For site assessment purposes only. Priority to communities having completed Phase I Assessment.

Brownfields Economic Development Initiative (BEDI)

U.S. Department of Housing and Urban Development (HUD)

<http://www.hud.gov>

Contact: Lisa Peoples, Office of Economic Development, (202)708-0614 extension #4456,

lisa_peoples@hud.gov,

Eleanor Granger, HUD, and (317) 226-5293,

<http://www.hud.gov/offices/cpd/economicdevelopment/programs/bedi/index.cfm>

SuperNOFA Information Center, 1-800-HUD-8929

Award Cycle: pending

Description: Designed to help cities redevelop abandoned, idled, or underutilized industrial and commercial facilities designated as Brownfields. Eligible activities include site acquisition, demolition, remediation, infrastructure construction or reconstruction, assistance to for-profit businesses for economic development, construction or reconstruction of public facilities.

Indiana Heritage Trust

Indiana Department of Natural Resources (DNR)

<http://www.state.in.us/dnr>

Contact: emyers@dnr.state.in.us, (317)233-1002, <http://www.state.in.us/dnr/heritage>

Award Cycle: Rolling deadline

Description: Preservation of land through license plate money.

MEETING MATCH REQUIREMENTS

Many grants require some level of matching to be indicated on the initial application. In each case, in-kind dollars can be obtained in a variety of ways, including:

- Direct allocation of city resources
- Relevant municipal employees' salaries
- Market Cost of donated land
- Labor hours contributed by volunteers
- Consultant services, donated or paid for by city
- Surveying services, donated or paid for by city
- Supplies for construction, donated or paid for by city
- Contract labor, donated or paid for by city

APPENDIX C

EXAMPLES OF SUCCESSFUL GREENSPACE PROGRAMS

Table 5. In-Depth Case Studies

City	Area in acres	Methods	Funds
Eugene, OR	1877	fee title acquisition	SDC & bond measure
Chapel Hill, NC	450	straight purchasing	open space bond
Buck County, PA	1872	purchasing & easements	bonds & cigarette tax
Ames, IA	1200	zoning changes, easements	donations & tax advantages

Table 6. Additional Case Studies

City	Area of Greenspace	Funding	Method
Gainesville, FL	2000 acres	Florida Communities Trust	
Portland, OR	800 acres	wide bonds, stormwater	
Chester County, PA	3000 acres	open space grants	conservation easements
Boulder, CO	41,000 acres	sales tax	purchase land & ce
Columbia, MO	100-year floodplain	Fed. Surface Transportation	conservation easements
Cuyahoga County, OH	parks & corridors	open space & env funds	
Atlanta, GA	portions of streams	park fees, bonds	purchase land
Lexington-Fayette County, KY	rural, urban, downtown	park fees, taxes	purchase land
Lincoln, NE	greenway corridors	park fees, donations	conservation easements

IN-DEPTH CASE STUDIES

- Eugene, Oregon
- Chapel Hill, North Carolina
- Buck County, Pennsylvania
- Ames, Iowa

Eugene, Oregon

<http://www.ci.eugene.or.us/>

Home to more than 140,000 people, Eugene is Oregon's second largest city. It covers approximately 41.5 square miles, with the Willamette River running through the heart of the city and the McKenzie River joining the Willamette to the north of town. The elevation is 426 above sea level and the city's topography features Skinner Butte to the north of downtown and the south, the landmark Spencer Butte, now a 310-acre city park.

Area of Greenspace:

Park system-2,616 acres

Open space-1,887 acres

What kind of greenspace/open space plan exists?

Eugene has a Master Plan for the entire park system that was completed in 1989. As a part of that plan, there is a section dealing with Metropolitan Parks (those that are considered Community Wide resources) that lists the policies and proposed actions for most of our major open space systems. However, the plan is very dated, isn't as specific as we wish it was, and misses both some of the larger and smaller opportunities that we know exist. The good news is that we have just begun the process of updating this plan, and we expect that we'll end up with something much closer to our vision of what it should be.

What methods do you use to acquire land?

We have very few easements and at this time really prefer fee title acquisition. We've found that in general conservation easements present more problems than they're worth, but this is an issue that we're still looking at as circumstances change.

Briefly, as for 'the method' we're using, it's based on finding willing sellers in the areas we've identified as our targets. Our long-range goal is to complete a "Ridgeline Park" that extends from the west to the east edge of Eugene and more or less follows the ridgeline that skirts the southern edge of the city. Towards that end we went through a GIS effort to identify all the potential (those that allowed for connectivity, public access, good road crossings, and were either undeveloped or underdeveloped) parcels that could help us achieve that goal, and then sent out a letter to all the owners asking them to contact us if they had any interest in working with us. We did get quite a few responses, and to date have acquired about 222 acres in 16 transactions. These transactions included several donations of land.

How are funds acquired to purchase land?

There are two main sources for the acquisition funds that we're currently using – System's Development Charge (SDC's) and a 1998 Parks & Open Space Bond Measure. SDC's provide us at present with about \$750,000 a year for acquisition and development, but there are limitations as to how we can spend that money: As our SDC's are structured at present (we're also in the middle of updating our SDC methodology) they can only be used for neighborhood and community parks, and generally only in the areas where the new development is occurring. Metropolitan parks are not included, and this is where most of our open space acquisition is happening. In 1998 Eugene voters passed a \$25.3 million Bond Measure, which included \$3.72 million for expanding our Ridgeline Park - and this, is the source for almost all of the acquisition funding that we've accomplished over the past 4 years. We're currently looking into a potential wildlife mitigation grant from the Bonneville Power Administration, and a potential matching grant opportunity through the USFS Forest Legacy Program.

What problems have you faced with the program?

Two main ones: uncooperative developers, and not having enough money to pursue all of the potential properties we'd like to have. Some of the property we want is higher elevation parcels on the edge of the City limits, and these parcels potentially contain the highest value developable lots. Some developers have told us that they do not want, and they believe the

people that they are marketing to do not want, any public trail access anywhere near their developments. In one case this is forcing us to route the trail off of the ridgeline well down into the valley bottom. We have also run into a few private individuals who have actively opposed our efforts to create this trail near their properties, but some who have been enthusiastic about the possibility, and one who even donated \$40,000 to make sure that a particular transaction could be completed has balanced that out. We have uncovered at least one large holding (400+ acres) that we believe we could buy if we had money available, but our funds aren't currently sufficient to purchase the entire set of parcels, and the property owner has said that he doesn't want to break them up at this time.

Future Plans:

We're fairly satisfied with our acquisition efforts to date, and optimistic about the future (there are currently plans to go back to the public for another bond measure in a few years), but there's always room for new ideas.

Chapel Hill, North Carolina

<http://www.townofchapelhill.org/planning/index.htm>

Area of Greenspace:

400-500 acres

What kind of greenspace/open space plan exists?

The greenway master plan has a stipulation that if a developer develops on a stream, there must be some open space on the property.

What methods do you use to acquire land?

Only straight purchasing of lands. Have not had much luck with other methods of obtaining land besides, purchasing. Property owners are only interested in selling their land outright.

How are funds acquired to purchase land?

In 1996 a \$3 million open space bond was approved. So far they have spent two-thirds of this bond. In the payment-in-lieu method for undesirable lands the developer dedicates the land to the city, takes the money, sets the value for the land, and purchases land somewhere else. The city also receives funds through donations and developmental ordinances.

What problems have you faced with the program?

It is getting more difficult to purchase land. Most of the city is already developed. If the city does not own or control the land they make sure that it has a no-build easement on it. There are many areas that have strong floodplain regulations with no build easements on them.

Future Plans:

Currently, Chapel Hill is concentrating on purchasing land at the edge of the city. After purchasing this land the city plans on simply sitting on it, or using it for light recreational uses such as trails. The next step from there is to preserve land within the county.

Bucks County, Pennsylvania

<http://www.buckscounty.org/>

Bucks County is one of the fastest growing counties in Pennsylvania. Housing units are projected to increase to 283,900 units by 2020, a 42% increase from 1990. Much of this projected growth will occur on Buck County's remaining farmlands. Buck County has lost over 68% of its agricultural land during the last 50 years. Still ranks 12th out of 67 counties in Pennsylvania for agricultural production.

Area of Greenspace:

Municipal Open Space Program-1872 acres preserved or protected
Municipal Farmland Preservation-850 acres preserved
Natural Resource Conservation-466.7 acres
Parkland Acquisition Program-84 acres
Agricultural Land Preservation Program-over 6,500 acres, goal of 10,000 acres to be preserved by 2007.

What kind of greenspace/open space plan exists?

By the end of 2001, all 54 municipalities completed open space plans. Each open space plan details a municipality's resources suitable for preservation and the steps needed to protect them. A complete, adopted open space plan is a prerequisite to receiving county assistance.

What methods do you use to acquire land?

The typical farmer preserves 80% of his land, or an average 56 acres, and contributes anywhere from 40-70% of the value of purchased conservation easements. The cost of conservation easements has averaged about \$7000 per acre.

How are funds acquired to purchase land?

In 1987, Pennsylvania residents voted by more than a 2-to-1 margin to approve a \$100 million bond sale to fund agricultural preservation throughout the state. The program is currently funded statewide by a 2-cent tax on every pack of cigarettes sold within Pennsylvania. This cigarette tax generates an average of 23 million dollars annually to be used for farmland preservation. The Growing Greener initiative provided a total of \$100 million in supplemental farmland preservation funding in July 1999.

Then in 1989, Bucks County Commissioners allocate \$400,000 towards farmland preservation and receive \$1,661,106 in state grants and matching funds.

The Bucks County Open Space Program was established in 1997, as a County commissioner initiative and voter-approved \$59 million county open space bond issue. Implementation of the program was divided into four main components: the Municipal Open Space Program, the Agricultural Land Preservation Program, the Parkland Acquisition Program, and the Natural Areas Program.

Using \$9 million from the Commissioners' Open Space Initiative, the county has been providing municipalities and nonprofit organizations a 50% matching grant, up to \$500,000 for the acquisition and permanent preservation of land that possesses significant natural features or habitats. The Bucks County Natural Areas Inventory (NAI), which identifies natural areas that should be preserved through the program, serves as a guide to determine the significance of the resources located on a particular property.

Bucks County received \$3,093,475 from the state of Pennsylvania in 2002 for the purchase of conservation easements. Bucks County allocated \$2 million for easement purchases in 2002.

Ames, Iowa

<http://www.ames.ia.us/>

Ames, Iowa is home to Iowa State University and 50,731 people. In May 2002 the City of Ames received the honor of being ranked 16th in the Nation of "Best Places to Live and Work," according to BestJobsUSA.com. Among the reasons Ames was selected for this honor: cost of Living Index of 101.5, median home price of \$122,499, unemployment rate of 2.9%, projected job growth rate to 2008 of 6.4%, excellent educational opportunities, excellent health care providers, and many art and recreation choices.

Area of Greenspace:

750 acres (recently acquired additional 450 acres)

What kind of greenspace/open space plan exists?

The City of Ames does have a greenspace open space acquisition program that involves many forms of resources being applied to the acquisition of property.

What methods do you use to acquire land?

Historically, the city obtained much of its open space as a result of gifts from landowners who were willing to donate open space areas along major streamways and river corridors. This has created a somewhat linked and integrated system of greenways in the city. More recently the city has used the service of the Iowa Natural Heritage Foundation to assist in securing greenspace. This approach has utilized private fund raising techniques along with tax-advantaged donations from the property owner that owned the land.

The City has utilized the techniques have “less than fee simple acquisition” where the city obtains an easement right, but the underlying title remains with the owner of the property.

The City has in some instances, obtained property via dedication from developers in return for favorable zoning decisions as a result of a “zone change agreement” (contract rezoning). However, most states do not allow this technique.

ADDITIONAL CASE STUDIES

- Gainesville, FL
- Portland, OR
- Chester County, PA
- Boulder, CO
- Columbia, MO
- Cuyahoga County, OH
- Atlanta, GA
- Lexington-Fayette County, KY
- Lincoln, NE

Gainesville, Florida

<http://www.dca.state.fl.us/>

<http://www.co.alachua.fl.us/>

Gainesville maintains 2000 acres within 17 nature parks. The City of Gainesville is attempting to acquire three additional greenspace projects with Florida Communities Trust funds, and matching funds from the City. This process is currently underway and acquisition, if all goes well, will be within 2003. All of Gainesville’s greenspace is used for passive recreation including nature trails, environmental education, and greenways. Florida Communities Trust funds land acquisitions for local governments throughout the state.

Portland, Oregon

<http://www.ci.portland.or.us/>

<http://www.metro-region.org/>

In 1995, voters passed a region-wide bond measure and it passed \$135 million to acquire and improve natural areas. Eight hundred acres have been acquired the last six years. Funds used by the City include its \$7.4 million portion of the wide bond, Systems Development Charges, Capital funds from the City’s stormwater department, and FEMA funds for floodway and floodplain acquisition. Environmental overlay zones were developed beginning in the late 1980’s. Current efforts to strengthen these local regulations have met significant organized resistance.

Chester County, Pennsylvania

www.chesco.org/

In 1989 voters passed a \$50 million Open space and farmland preservation bond. Fifteen million dollars were earmarked for open space acquisitions. County Commissioners pledged an additional

\$75 million to Landscapes 21st Century Fund in 2002. Funding has resulted in the creation of 67 municipal parks. The rate of development of land in Chester County is estimated to be 5000 acres a year, hope to have same amount protected in open space. Five thousand acres protected through conservation easements or in-fee acquisition.

Boulder, Colorado

<http://www.ci.boulder.co.us/>

In 1989, Boulder citizens approved a 0.33-cent increase in the 0.4-cent sales tax for open space, speeding up acquisition of land threatened with development. So far, about 13,000 acres have been added to the 17,000 acres of open space the City owned in 1989 and another 8000 acres have been identified for acquisition by 2006. There may be some double counting between the City of Boulder and Boulder County for open space acres. Most often Boulder purchases land outright, but in instances where the land is not available for sale, the department may purchase some of the rights of the property owner.

Columbia, Missouri

<http://www.ci.columbia.mo.us/>

In 1993, the Columbia City Council created and adopted a general Greenbelt Policy for the community, two years later the specific plan was adopted. Funding for the construction of the trail projects were received through the Federal Surface Transportation Program (STP) Enhancement Program. The area includes the 100 year floodplain, parks, and other preserved open spaces. The City currently has provisions for developers to dedicate easements for greenbelt purposes; these are defined as greenspace easements.

Cuyahoga County, Ohio

www.cuyahoga.oh.us/

The Cuyahoga County Open space Inventory conducted in the mid 1990's, found there to be 32,200 acres of private and publicly protected open space in the county. A goal of preserving and restoring approximately 20,000 acres of additional open space has been established. Focuses on preserving natural corridors centered on water bodies and hillsides.

Atlanta, Georgia

<http://www.ci.atlanta.ga.us/citydir/dpdnc/greenspace.htm>

Atlanta has identified four primary sources of funding: Georgia Greenspace Program, Park Impact Fees, Greenway Acquisition Project, and Bond projects for public plazas and greenspace. In 2001, the Georgia Greenspace Program allotted Atlanta \$2,668,712 from Fulton County and \$190,746 from DeKalb County from a time constraint of 2-3 years to spend the money. Limitations on open space from counting towards the greenspace goals include sidewalks, sports fields, golf courses, and manmade bodies of water. In 1998 the Mayor committed Atlanta to investing \$25 million in the acquisition of property along selected portions of streams in metro Atlanta that flow into the Chattahoochee and South Rivers in order to address water quality problems. The goal of Atlanta is to protect 20% or 16,896 acres as greenspace. Land types include parks, floodplains, urban forests, and greenways.

Lafayette-Fayette County, Kentucky
<http://www.lfucg.com/AboutLFUCG/>

Greenspace Plan identifies goals including planning and growth management, bluegrass identity, recreational, and educational value. The three types of greenspace locations are rural, urban, and downtown areas. The plan also identifies community planning and quality of life, economic, agricultural, and environmental quality benefits of increased greenspace. Possible funding sources include: donation of lands, billboard tax, increasing park improvement fees, inheritance tax, motel/hotel tax, and ISTEA funds. Suggested tools to acquire lands are purchasing land, development rights, conservation easements, historic districts, nature preserves, growth management planning, zoning and development review, flexible land use regulations, greenspace zoning, agricultural districting, right-to-know farm law, and agricultural zoning.

Lincoln, Nebraska
<http://www.ci.lincoln.ne.us/city/plan>

The Salt Valley Heritage Greenway is a proposed continuous open space “loop” around Lincoln providing a connection with both the urban and rural communities. The greenway is envisioned to be comprised of conservation easements and fee simple acquisition of selected sites with unique environmental features or recreational opportunities.

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